



RCloud Tasking Form - Part B: Statement of Requirement (SoR)

Title of Requirement	Redacted under FOI Exemption
Requisition No.	Redacted under FOI Exemption
SoR Version	1.0

1.	Statement of Requireme	nts			
1.1	Summary and Backgrou	nd Information			
	Redacted under FOI Exemption				
1.2	Requirement				
	Aim The aim of this work is to understand the chemical and physical parameters required to fabricate a thermal battery based on the sodium nickel chloride electrolyte system and address the challenges posed by the concept. Scope The challenges which the project must address are based on the previous chemistries generated Redacted under FOI Exemption and structures to address the challenge and allow this novel battery concept to successfully meet the specifications required:				
	 Wetting of NASICON electrolytes – determining wetting angles as a function of temperature and surface treatment. Sodium electrode: examining novel surface treatments to allow better sodium wetting, and electrochemical analyses of sodium electrode cells. Sodium aluminium chloride electrode: attain sufficient electronic conductivity in the electrode skeleton. Cell testing including on after rapid heating to high temperature. To test and demonstrate electrodes and cells so that they are shown to be capable and would have the capacity to meet the following specifications for the complete battery of ~30 cells, i.e a cell at 1.5V can produce 12.5 A, or 1 Acm⁻². 				
		Voltage (V)	40		
		Discharge time (s)	12	1	

Discharge time (s)





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	Energy delivered (Wh)	1.67
	Power density (W/I)	12700
	Energy density (Wh/I)	42
	Temperature (°C)	-40 – 75
	Storage temperature range (°C)	-50 – 85
	Activation time (ms)	≤ 180
	Volume (ml)	≤ 40

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The PI and student should and how they would meet to Redacted under FOI Exemption Redacted under FOI Exemption	propose a plan of research based them. The plan should be adjusted them. The plan should be adjusted them.	on the challed as research	enges described above h progresses.
Options or follow on wor	k (if none, write 'Not applicable')		
Contract Management Ac	tivities		

	Regular progress meetings and reports as per deliverable D1 & D2	
1.5	Health & Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement	
	Redacted under FOI Exemption	



1.6	Deliverables & Intellectual Property Rights (IPR)				
Ref.	Title	Due by	Format	Expected classification (subject to change)	What information is r deliverab
D - 1	Regular progress meetings	At the end of each academic term	Two meetings each year should be face to face, others online.	0	Redacted under FOI Exemption

RCloud (version 4) Tasking Form – Part B (Statement of Requirement (SoR)

Version 1.0 (December 2020)

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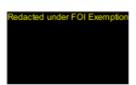


D - 2	Regular Progress Reports	At the end of each academic year	Progress Report and Presentation	0	Redacted under FOI Exemption
D - 3	PhD Thesis	End of contract	Thesis	0	Redacted under FOI Exemption
D - 4	Final presentations	End of contract	Presentation	0	Redacted under FOI Exemption

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1.7	Deliverable Acceptance Criteria
	1. Redacted under FOI Exemption
	Redacted under FOI Exemption



2.1	Method Explanation				
	Redacted under FOI Exemption				
2.2	Technical Evaluation Criteria				
	A clear, robust and concise technical plan detailing how the requirement will be maken value for money.	net, demonstrating			
2.3	Commercial Evaluation Criteria				
	No limiting IP issues. Any background IP claims must be specified in the p	roposal.			
	Costs do not exceed Redected under FOI Exemption	Pass/Fail			
	Labour rates and price as per single source rates uploaded to RCloud	Pass/Fail			
	Completion of Research Worker Form's	Pass/Fail			
	Completion of Statement Relating to Good Standing	Pass/Fail			
	Completion of Supplier Assurance Questionnaire (SAQ)	Pass/Fail			
	Confirm acceptance of RCloud Version 4 Terms and Conditions	Pass/Fail			