

APPENDIX B – UPDATED CAHB PILOT RISK REGISTER

Risk Identification <i>(inherent assessment)</i>							Risk Mitigation <i>(residual risk)</i>						
Ref	Risk	C = Cause E = Effect	Proximity	Probability	Impact	Overall Score	Counter Measures - Underway and / or Planned	Probability	Impact	Overall Score	Action Date	Current Status	Risk Owner
1	Should the CAZ be further delayed, the council may need to cash flow the proposed £3.289m if the CAZ net proceeds are not available by December 2020.	C -The CAZ is further delayed beyond July 2020. E- The council may need to cash flow the proposed £3.289m for the second tranche of hydrogen buses being delivered by December 2020.	Long	2	5	10	<p>CAHB project will align spend profiles to cover the cost of hydrogen bus payments, this will ensure that net proceeds are not required before December 2020.</p> <p>Continued clarification and regular meetings with CAZ SRO, CAZ Team and CAZ Finance personnel.</p> <p>Fortnightly updates to DEFRA to monitor and review their progress on their deliverables that have caused the delay to CAZ implementation.</p> <p>Alignment with the monitoring controls for CAZ net proceeds in regard to 7.3.4 of the CAZ Charging Order report to Cabinet June 2019.</p> <p>Planned temporary use of corporate capital resources of up to £3.289m to cash flow the final stage payment.</p>	2	3	6	01.05.2019 – 20.12.2020	Active	Sylvia Broadley- Programme Management. BCC Finance.

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2	Risk that commercial bus operator is not procured.	<p>C - The key issue of the feasibility of a Bus Operator covering capital investment of £3.289 as well as up to an additional £5m operational cost investment.</p> <p>E - Bus Operator not procured as the scheme is not commercially viable for them. The Council will not proceed with Hydrogen Bus scheme.</p>	Short	2	5	10	<p>Cabinet approval of hydrogen buses as a CAZ net process spend priority- June 25th 2019.</p> <p>Cabinet report July 30th to approve proposed CAZ net proceeds covering the capital requirement.</p> <p>Operational costs including fuel, repair & maintenance and parts, will be clarified within the procurement documents to offer more cost certainty for Bus Operators to build a commercial case. Procurement criteria will require Bus Operators to state their level of operational investment based on their contribution to operational costs.</p> <p>Should this occur- no capital expenditure will be committed and the Council will review the position, liaising with grant providers and Council governance as required.</p> <p>If required – Grant funding will be repaid in line with grant conditions.</p>	1	5	5	01.05.2019-30.11.2019	Active	Sylvia Broadley- Programme Management. BCC Finance.

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3	If delay to ordering the buses goes beyond November 2019, there is a risk that the grant funding from the FCHJU will be withdrawn.	<p>C- FCHJU have made clear that if the bus order is not in place by November 2019, the grant funding will be withdrawn</p> <p>E- Council will lose FCHJU funding of £4.080m. The Hydrogen bus Pilot will close down.</p> <p>Hydrogen market will not start. There will be no 'return on investment' in Tyseley Energy Park hydrogen re-fuelling hub and risk of loss of reputation for the Council and also Tyseley Energy Park.</p>	Short	3	5	15	<p>Market consultation with the bus operators to inform changes required in original FBC and procurement strategy.</p> <p>Obtain Cabinet approval of hydrogen buses as a CAZ net process spend priority- June 25th 2019.</p> <p>Ensure Cabinet report by July 30th to approve proposed CAZ net proceeds covering the capital requirement for the hydrogen buses.</p> <p>Additionally to approve the revised procurement strategy to enable the timeline of the bus operator being procured by September 2019 and order for the buses by November 2019.</p> <p>Ongoing discussions with Finance colleagues and all Grant Funders- particularly the FCHJU. Regular update meetings are in place at National and EU level.</p> <p>If FCHJU funding withdrawn , the project will not progress, and any grant funding will be repaid.</p> <p>To address potential loss of reputation, the Council will evaluate and evidence the strategies employed to enable 'readiness' of the bus market intervention within the CAHB Pilot.</p>	2	5	10	01.05.2019-20.12.2019	Active	Sylvia Broadley- Programme Management. BCC Finance.
4	Should the CAHB Pilot project not progress to ordering the hydrogen buses, the Council is at risk of possible clawback of the £1m OLEV grant Paid for the hydrogen re-fuelling equipment as passed onto hydrogen provider ITM Power.	<p>C- The hydrogen buses are not ordered and therefore not deployed.</p> <p>E- Potential clawback of £1m grant from OLEV. Risk of loss of reputation for the Council. Potential reputational risk for the Council.</p>	Short	2	3	6	<p>A Condition of Grant Agreement put in place as a mitigation action to cover the Council, whereby ITM Power pay back the grant should OLEV proceed to clawback the grant funding. Given this process may be complex and lengthy, the Council may be required to make good the repayment of £1.00m until resolved.</p> <p>Ongoing discussions with Finance colleagues and OLEV.</p> <p>Regular update meetings Project Managers.</p> <p>Evaluate and evidence strategies employed to enable 'readiness' of the bus market intervention within the CAHB pilot.</p>	1	2	2	01.03.2018-20.12.2019	Active	<p>Sylvia Broadley- H2 Bus Programme Management Co-ordination</p> <p>Rachael Smith-ITM Power Hydrogen Provider</p>

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5	Procured bus operator pulls out of the project after signing the operating agreement- potential risk of clawback should this happen within the first 2 years of grant funding conditions.	C Lack of commercial viability. E. Clawback from Funders for not operating within first 2 years	Medium	2	4	8	Operating Agreement grant conditions to require the buses to operate for agreed period. The operating agreement will include mitigation action to cover the Council in the circumstance where the Council may be subject to grant clawback. The operating agreement will include clauses to protect the Council's position, requiring the operator to make good any financial impact. Procurement process for the Bus Operator to provide a Deployment Plan of route detailing operational costs. This will need to be agreed before the Operating Agreement is signed. Monitoring and evaluation will be a key element of deployment, as will relationship building with the procured bus operator and key stakeholders.	1	2	2	01.07.2019-31.12.2023	Active	Sylvia Broadley- H2 Bus Programme Management Bus Operator.
6	Delivering the overall programme of hydrogen FC bus deployment and operation involves the installation of the refuelling infrastructure at Tyseley Energy Park (TEP).	C: Delay in deployment of TEP access road.	Short	2	5	10	Planning permission for the refuelling infrastructure at TEP granted Nov 2018- complete. Private funding of £1.350m for the development of the new access road in to TEP has been secured as well as GBSLEP gap funding of £1.253m to proceed with developments- complete. Ground and civil works for re-fuelling hub to be complete by Oct 2019.	2	5	10	30/06/2018-30.11.2019	Active	Sylvia Broadley- H2 Bus Programme Management Co-ordination
		E: Delay to installation in hydrogen refuelling infrastructure and delay in deployment of hydrogen buses											Rachael Smith- ITM Power Hydrogen Infrastructure
7	Unforeseen technical issues for renewable electric supply to be connected to hydrogen production refuelling infrastructure at TEP.	C. Delay to development of renewable electricity supply and subsequent production of hydrogen.	Short	2	5	10	Ongoing dialogue with renewable energy suppliers / land owner and ITM Power. Connection Plans have been drawn up and agreed. Short term solution identified of delivery model to supply hydrogen.	1	4	4	30.06.2018 - 30.10.2019	Active	David Horsfall- Tyseley Energy Park Sylvia Broadley –H2 Programme Management
		E. Additional costs on mains alternative connection to National Grid electric supply. Also impacted on Kilowatt cost and impacts on price modelling.											
8	Hydrogen re-fuelling equipment not being	C. Hydrogen fuel not available at TEP in time.	Medium	2	5	10	Ongoing communication between TEP and ITM power to ensure infrastructure components are manufactured to the required	1	4	4	30.06.2018 - 30.10.2019	Active	Rachael Smith- ITM Power Hydrogen

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	commissioned to use by the date of bus mobilisation	E. Additional costs to keep the buses in storage, time delay on bus mobilisation and use of the hydrogen plant.					specification and are following the key dates for completion and delivery. Due for completion on October 2019 Short term solution identified in risk 7 of delivery model to supply hydrogen						Infrastructure Sylvia Broadley BCC Programme Management
9	Lack of maintenance facilities and trained staff to maintain the fleet	C. New and current staff from the bus operator not receiving sufficient training on the new buses and the correct facilities not being in place to maintain and repair the bus fleet. E. The buses are poorly maintained leading to a possible increase in technical faults whilst on operations. Project outcomes of testing commercial viability is not realised.	Long	3	4	12	Repair & Maintenance and servicing is responsibility of Bus Manufacturer. Bus Operator is responsible for retrofit of depot facilities to meet Health & Safety standards for maintenance & repair. This requirement is set at procurement stage and will need to be covered in the bus operator proposed deployment plan to be agreed. Scheduling and detail of R & M is a requirement. Review & Monitoring of operating agreement will be in place. Bus manufacturer R & M contract with bus operator provides; <ul style="list-style-type: none"> Range of repair & maintenance options. Training is provided as part of the R & M package. Options for R & M to be provided by Bus Manufacturer if preferred. Parts package based in UK. 	1	3	3	01/08/2019-end of bus operator agreement.	Active	Bus operator Sylvia Broadley- BCC programme Management Bus Manufacturer