

ABERDEEN CITY COUNCIL

COMMITTEE	City Growth and Resources
DATE	3 February 2022
EXEMPT	The covering report is not exempt, however the content of Appendices A, B, C, D & E are exempt under paras 6, 8 and 9 of Part I of Schedule 7A to the Local Government (Scotland) Act 1973.
CONFIDENTIAL	No
REPORT TITLE	Aberdeen Hydrogen Hub Strategic Partnership - Contract Award/Approval of Joint Venture
REPORT NUMBER	COM/22/031
DIRECTOR	Gale Beattie
CHIEF OFFICER	Craig Innes
REPORT AUTHOR	Barry Davidson / Andrew Collins
TERMS OF REFERENCE	1.1, 2.1.1, 3.3, 4.1

1. PURPOSE OF REPORT

- 1.1 To seek a range of approvals with the objective of Aberdeen City Council entering into a Joint Venture with BP International Limited (“bp”) to deliver the Aberdeen Hydrogen Hub (“AHH”) Strategic Partnership (the “Project”).
- 1.2 To provide details on the proposed Joint Venture structure, governance, obligations, associated risks and the return on investment expected to the Council through participation in the Joint Venture.

2. RECOMMENDATION(S)

That the Committee:

Contract Award / Approval of Joint Venture

- 2.1 Subject to compliance with subsidy control legislation, an ongoing analysis of which is currently being undertaken, approves the appointment of BP International Limited (“bp”) as Joint Venture partner to deliver the Aberdeen Hydrogen Hub Strategic Partnership following a public procurement procedure, and subject to the budget approval in 2.4;
- 2.2 Authorises the Head of Commercial and Procurement to conclude and sign the Legal Agreements (as detailed in Appendix D) with bp, and to negotiate and agree any changes to them he considers to be necessary or desirable, subject to the budget approval in 2.4;
- 2.3 Authorises the Head of Commercial and Procurement to undertake or instruct any other actions, and the entering into of any other contracts and/or

documentation, that he considers to be necessary or desirable in connection with the setting up and operation of the Joint Venture;

Finance

- 2.4 Approves the Business Case for the Strategic Partnership included at Appendix B, and notes the Council's share of the estimated capital investment in the Joint Venture relating to Phase 1 of the AHH, and the seed funding investment to support the delivery of community benefits, supply chain development and training and skills and refers this to the Council's budget process;
- 2.5 Authorises the Head of Commercial and Procurement to spend up to £160k in 2021/22 in support of Recommendation 2.3, to be funded from the underspend on the 2021/22 General Fund Capital Programme;

Governance

- 2.6 Notes the Joint Venture structure in Appendix D and approve the proposed name of the separate legal entity to be incorporated and registered with Companies House;
- 2.7 Notes the summary of obligations of the Council in relation to the Joint Venture in Appendix D;
- 2.8 Notes the summary of the key provisions of the Joint Venture Legal Agreements in Appendix D in relation to Council Shareholder approvals and delegates authority to the Director of Resources to discharge the Shareholder Reserved Matters stated in Appendix D on behalf of the Council;
- 2.9 Notes that the Shareholder Reserved Matters **not** included in the Recommendation 2.8 above and that would require to be referred back to Committee for a decision include:
 - a) changing the share capital and distributions;
 - b) changes outside normal course of JVCo business;
 - c) funding approval for Projects not already included in the Council budget;
 - d) winding up the JVco;
- 2.10 Notes the key provisions of the Joint Venture Legal Agreements in Appendix D in relation to Council Director approvals and approves the appointment of the Director of Resources, and the Director of Commissioning as Directors of the JVCo to undertake the Director functions stated in Appendix D;
- 2.11 Notes that the Council's investment in JVCo expected to commence in 2021/22 will be incorporated into the Council's Group Accounts and subject to the statutory Annual Accounts and Audit process;
- 2.12 Instructs the Director of Resources and Director of Commissioning to continue discussions with Aberdeen Heat and Power regarding future opportunities for integrating hydrogen into District Heating and report the outcomes to a future meeting of this Committee; and

Site Selection

- 2.13 Notes in principle the proposed sites in Appendix E (together with the associated planning risks) for the solar park array and the hydrogen production and refuelling facility and instructs the Chief Officer City Growth, in consultation with the Chief Officer Corporate Landlord to provide an update on Site Selection and any associated commercial terms at the next meeting of this Committee.

3. BACKGROUND

- 3.1 Aberdeen City Council, in partnership with Opportunity North East (ONE) and Scottish Enterprise (SE), appointed Element Energy in 2019 to review the business case for the hydrogen sector in Aberdeen following successful pilot projects – including the Aberdeen hydrogen bus project and Council fleet deployment – but continuing market failure for wider commercial adoption of hydrogen.
- 3.2 The report concluded that collating hydrogen demand across fleets, increasing production and supply of green hydrogen by connecting to large scale renewable generators, and coordinating supply chain and training could lower the price of hydrogen and catalyse use by other growth sectors seeking to decarbonise (heat, industry, maritime, rail etc). This would then create significant economic opportunities as part of an energy transition in North East Scotland; unlocking new economic opportunities worth upwards of £700m gross value added to Scotland's economy by 2030, as well as thousands of high-value jobs in Aberdeen and the surrounding region.
- 3.3 This concept of a commercial hydrogen production, storage and distribution facility in Aberdeen powered by renewable energy, with associated training and supply chain support to facilitate uptake by fleet, heat, industry, export etc. has become known as the AHH.
- 3.4 It is envisaged that the AHH will be developed in three phases in response to growing demands for hydrogen:
- Phase 1: initial production for public sector consumption including the provision of a resilient, cost effective supply of hydrogen on a commercial basis to the market to support both existing and proposed transport projects.
 - Phase 2: expansion in the short to medium term to connect to larger volume utilisation of hydrogen - rail, trucks and marine use.
 - Phase 3: hydrogen for heat and export. Whole system approach to supply and demand. Innovation, skills and transition hub to support expansion of the local supply chain. Pursue the ambition for Aberdeen to be the centre of a brand-new energy production business, exporting hydrogen to the world. Recent ScotWind announcements may support the future delivery of Phase 3.
- 3.5 In June 2020, the Hydrogen Hub concept was adopted into the City Council's Energy Transition and Strategic Infrastructure Plans as part of a net zero vision.

The concept was also presented to the Scottish Government who announced they would support the AHH delivery with a £15m contribution from their newly established Energy Transition Fund – allocated to hydrogen fleet deployments to generate ‘anchor demand’ (bus and Council), hydrogen infrastructure (production and distribution), feasibility for heat and rail applications (future demand), and hydrogen training/supply chain developments, therefore stimulating private sector entry into this market where market failure had previously existed.

- 3.6 The vision for the AHH aligns with the UK Government’s recent UK Hydrogen Strategy publication which sets out the approach to develop a thriving low carbon hydrogen sector in the UK with an ambition to generate 5GW of renewable and low carbon hydrogen by 2030 and the Scottish Government’s Hydrogen Policy Statement and Draft Hydrogen Action Plan, which both pitch Scotland to become a leading hydrogen nation in the production of reliable, competitive, sustainable hydrogen.

Previous Committee Decisions in relation to the AHH

- 3.7 On 28 October 2020 (COM/20/185) the Council instructed the Chief Officer - City Growth following consultation with the Chief Officer - Finance, Head of Commercial and Procurement Services and the Chief Officer - Governance to identify the optimum investment and delivery model for the production, storage and distribution of renewable hydrogen for Aberdeen.
- 3.8 On 10 March 2021 (RES/21/055) the Council authorised the Chief Officer - City Growth, in consultation with the Head of Commercial and Procurement, to undertake a procurement exercise for the appointment of a partner to deliver the hydrogen hub programme and agreed in principle to a sum of £19.4million over the financial years 2021/22 and 2022/23 for a hydrogen production facility on completion of the procurement exercise to secure a joint venture partner for the hydrogen hub programme.
- 3.9 On 25 October 2021 (COM/21/269) the Council’s Urgent Business Committee approved the appointment of bp as the preferred bidder for the AHH Joint Venture.

The AHH Procurement Process

- 3.10 In order to assess the market interest in a joint venture partner for the AHH, a market sounding exercise was held using a Prior Information Notice (PIN) published in December 2020 using the Public Contracts Scotland and EU tender ePortals (ref. number 2020/S 251-634174).
- 3.11 This PIN exercise resulted in the receipt of 27 expressions of interest and during subsequent interviews with a cross section of respondents, the exercise concluded that there was considerable interest from investors in opportunities to inject finance into green hydrogen schemes; that a Joint Venture structure was deemed attractive to the market as it capitalises on a mix of public sector and private sector strengths; and that the Council’s anchor demand

for hydrogen for buses is a 'game changer' in relation to kick starting a new supply location for hydrogen in a developing market.

- 3.12 Following on from the soft market testing, a contract notice was published on 22 June 2021 using the Public Contracts Scotland and Find a Tender service ePortals (reference 14187-2021 2021/S 000-014187) and used the competitive dialogue process pursuant to Public Contracts (Scotland) Regulations seeking a Joint Venture partner for an initial term of 10 years plus 2 x 5 year extension options. The Council received 98 notes of interest in the opportunity.
- 3.13 The competitive dialogue procedure was chosen because the complexity, legal and financial makeup of the Joint Venture partnership and the risks which are attached to these are such that the contract cannot be awarded without prior negotiation. The competitive dialogue procedure was selected in preference to the competitive procedure with negotiation because the complexity of the requirement (and the time period available for the tender period) did not allow sufficient time for the tenderers to prepare an initial tender.
- 3.14 On closure and receipt of the mandatory Single Procurement Documents the Council received 10 submissions which were evaluated and ranked, with the top three being invited to participate in dialogue.
- 3.15 The dialogue process included bidders submitting first draft tender documents prior to commencement of dialogue meetings, allowing meetings to be focused on the issues raised by those submissions and a dynamic and flexible approach to dialogue which focused on resolving issues rather than formal pre-set meets and agendas prior to requesting final tenders.
- 3.16 The final tenders were evaluated against a weighted scoring process to identify a long term strategic partner to work with the Council to deliver a business plan which will realise the Council's AHH concept and meet the Council and Non-Contracting Authorities' requirements for hydrogen. The following criteria were assessed as part of the evaluation:
 - The Legal Agreements;
 - The Joint Venture Business Plan;
 - The Procurement and Development of an Infrastructure Business Plan;
 - The Operations and Maintenance Business Plan;
 - The Resourcing, funding and financing of the Joint Venture Business Plan;
 - The Supply Chain Development and Training delivery Business Plans;
 - The Economic Development and delivery Business Plan; and
 - Price submission.
- 3.17 bp was selected as the preferred bidder at the conclusion of this process (please refer to Appendices A, C and E for further details on the preferred bidder's submission; a comparison of the preferred bidder's solution against the stated Council objectives for the AHH and a summary of project risks).
- 3.18 On 27 August 2020 the Council entered into a Memorandum of Understanding ("MoU") with bp that provides a framework for cooperation to help the Council

achieve the goals under the Strategic Infrastructure Plan – Energy Transition, “the SIP”, approved by the Council in May 2020. The MoU clearly states that if there are any commercial opportunities that arise from that work, these will be governed separately. To ensure there was no conflict between the MoU and the Council’s procurement of a development partner for the Aberdeen Hydrogen Hub, work on any conflicting hydrogen activity was postponed until the procurement was complete, and progress will now be governed through this Joint Venture process.

4. FINANCIAL IMPLICATIONS

- 4.1 Appendix B includes details of the expected capital investment required of the Council by the Joint Venture and the anticipated return on investment.
- 4.2 Individual projects (including future phases) undertaken by the Joint Venture will require further business cases, including their funding solutions, to be presented to the Joint Venture Board, (and relevant Council Committee where additional funding is required), for approval before proceeding. The Council may be able to access external funding opportunities in support of this activity that the Joint Venture would otherwise be unable to access e.g. Green Growth Accelerator, Energy Transition Fund etc. Further funding opportunities will be explored by Council officers on a project by project basis. Current Scottish Government funding is outlined in the Executive Summary of Appendix B.
- 4.3 If JVCo decides not to proceed with the Project at the point of final investment (expected to be in Q1 2023), the Council would be unlikely to see any return for the equity investment from the first two years of the Project as outlined in Appendix B.

5. LEGAL IMPLICATIONS

- 5.1 The Council has received consent from Scottish Government to act as a trading operation through its investment in JVCo under Section 1A of the Local Authorities (Good and Services) Act 1970.
- 5.2 The Legal Agreements are described in Appendix D (comprising a Shareholders Agreement, Articles of Association, Management Services Agreement and Hydrogen Supply Framework Agreement). The competitive dialogue process allows bidders to propose amendments to the Legal Agreements during dialogue, and these were accepted or rejected depending on the known or perceived transfer of risk involved.
- 5.3 The bids were then evaluated on the basis of the extent to which amendments to the Legal Agreements taken as a whole, represent:
 - i. in the case of the Shareholders Agreement and Articles of Association, robust shareholder provisions which will allow the Council to protect its investment and ensure the delivery of the Joint Venture's purpose; and
 - ii. in the case of the Hydrogen Supply Framework Agreement, transfer of risk to or from the Council and/or any dilution of the provisions under that

agreement which ensure delivery of best value hydrogen supply to the Council and the Non-ACC Contracting Authorities permitted to call-off under the framework and/or incentivise performance.

- 5.4 The legal and commercial implications related to the establishment and operation of the Joint Venture are provided in Appendix D of this report.
- 5.5 Relevant Director training will be provided by JVCo as part of a 100 days kick-off plan following incorporation of JVCo.
- 5.6 The Council is complying with its obligations in relation to market abuse regulations governing the bonds listed on the London Stock Exchange.
- 5.7 bp has been formally accredited as a Living Wage Employer by the Living Wage Foundation.

6. MANAGEMENT OF RISK

- 6.1 The recommendations contained within this report and the assessment of risk contained within the table below have been carefully considered against the Council's Risk Appetite Statement. The proposals set out in the recommendations are consistent with the Council's approved risk appetite statement.
- 6.2 The risks in this report reflect the risk of entry/non-entry into the Joint Venture. Appendix B addresses the risk to the Council's investment in the Joint Venture, and Appendix E provides a summary of all risks identified during the procurement, all at the time of writing.
- 6.3 Following the formal establishment of the Joint Venture, JVCo will be responsible for identifying risks, proposing mitigations, the monitoring of risks and the subsequent reporting of risks in a format agreeable to both the Council and bp. The risks to JVCo and associated controls and control actions will evolve as the AHH progresses through the three phases set out in section 3.4 above.
- 6.4 The risk ratings specified reflect the risk level post-mitigation assuming the mitigation actions identified will be implemented and completed.
- 6.5 It is anticipated that Management accounts and annual performance reporting of JVCo will both be reported back to CG&R Committee.

Category	Risk	Low (L) Medium (M) High (H)	Mitigation
Strategic Risk	If the Joint Venture is not accepted there is a risk of losing first mover advantage in the hydrogen market.	L	Approve the recommendations within this committee report.

	The AHH will support the outputs specified in the 2020 Strategic Infrastructure Plan and support the Energy Transition vision, emissions reduction and net zero aspirations of the City and Region.		
Compliance	Compliance with relevant commercial legislation including trading, procurement and Subsidy Control.	L	<p>The Council has received consent from Scottish Government to act as a trading operation through its investment.</p> <p>Legal and procurement advice has been provided throughout the Project to ensure the procurement process followed was compliant with the terms of the Public Contracts (Scotland) Regulations 2015.</p> <p>Full legal review of funding proposals for compliance with subsidy control requirements/grant conditions to be completed prior to Contract award.</p>
Operational	Lack of hydrogen supply for vehicles in the City. With the commitments the Council has made to vehicles (buses, Council fleet, etc) there is a danger that demand will exceed supply. This will either delay the roll out of our h2 fleet programme or require more expensive interim h2 to be sought.	L	<p>Approve the recommendations within this report.</p> <p>The AHH which will provide a resilient and reliable source of hydrogen for transport and will ameliorate this risk.</p>

Financial	JVCo does not perform against the financial model provided by bp.	M	Sensitivity analysis has been carried out on the bp financial model. Further details on the financial risks are included in the business case in Appendix B.
Reputational	<p>Failure to obtain Committee approval to enter into JVCo may impact on the reputation of the Council and Aberdeen's leading position in deploying zero-carbon technologies in the energy and transport sectors.</p> <p>The Council has a vision for the Aberdeen City Region to become a world-class energy hub blazing a trail with a replicable model for a low and zero carbon economy at the forefront of hydrogen technology in Europe and announced its intentions for the Hydrogen Hub in the media and at COP26.</p>	H	Approve the recommendations within this report.
Environment / Climate	Failure to support the decarbonisation of the Council's fleet operations and general air quality improvements in the City region.	L	<p>Approve the recommendations within this report.</p> <p>The delivery of the AHH will support the growth of a new, clean industrial sector in the north east that can expand to include heat, industry and power as well as transport.</p>

7. OUTCOMES

<u>COUNCIL DELIVERY PLAN</u>	
Impact of Report	
Aberdeen City Council Policy Statement	<p>The proposals within this report for the AHH support the delivery of the following Policy Statements: -</p> <p><u>Economy</u></p> <p>7. Continue to maximise community benefit from major developments.</p> <p>11. Work with both governments in order to unleash the non-oil and gas economic potential of the city.</p> <p><u>Place</u></p> <p>1. Build up our existing strength in hydrogen technology.</p> <p>2. Support efforts to develop inward investment opportunities.</p>
Aberdeen City Local Outcome Improvement Plan	
Prosperous Economy Stretch Outcomes	<p>The proposals within this report support the delivery of Stretch Outcome 3 – 500 Aberdeen City Residents upskilled/reskilled to enable them to move into, within and between economic opportunities as they arise by 2026.</p> <p>The deployment of hydrogen vehicles as part of the long-term plan to deliver the Aberdeen Hydrogen Hub is directly linked to Aberdeen’s energy transition and economic diversification.</p> <p>Delivery of the AHH programme will have a direct impact on local jobs (additional technicians, refuelling capability, local supply chain support, training, construction, delivery) and significant potential on GVA of the region and the number of jobs.</p>
Prosperous People Stretch Outcomes	<p>The proposals within this report support the delivery of Stretch Outcome 11 - Healthy life expectancy (time lived in good health) is five years longer by 2026.</p>

	Fuel cell electric vehicles have lower NOx and Particulate Matter emissions than diesel equivalents benefitting residents in air quality management areas across the City.
Prosperous Place Stretch Outcomes	The proposals within this report contribute to delivery of Stretch Outcome 13 - carbon emissions reduction by 61% by 2026 and adapting to the impacts of our changing climate. Renewable hydrogen used in a fuel cell electric vehicle has zero emissions. ACC's h2 vehicles have saved over 140 tonnes of CO2 in the past few years as they run on green tariff produced hydrogen.
Regional and City Strategies	<p>The proposals within this report support the following Strategies:</p> <ul style="list-style-type: none"> • Aberdeen City Net Zero Vision (2020) • Strategic Infrastructure Plan – Energy Transition (2020) • Council Climate Change Plan 2021-2025 • Aberdeen City Region Hydrogen Strategy & Action Plan 2015-2025 • Local Transport Strategy 2016-2021 • Air Quality Action Plan (2011) • Nestrans 2040: Regional Transport Strategy for the North East of Scotland (2021) • Regional Economic Strategy (2015) • The emerging Net Zero Aberdeen route map (2022) <p>The AHH supports the city's energy transition from fossil based to net carbon zero public sector; net carbon zero city and ultimately a climate positive city over the next few decades.</p>
UK and Scottish Legislative and Policy Programmes	<p>The proposals for the AHH within this report support the requirements placed upon the Council by:</p> <ul style="list-style-type: none"> • The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 • A fairer, greener Scotland Programme for Government 2021-22 – Low Emissions Zones <p>The proposals for the AHH within this report support the following policies:</p>

	<ul style="list-style-type: none"> • UK Government Hydrogen Strategy (2021) • Scottish Government Hydrogen Policy Statement (2020) • Scottish Government Draft Hydrogen Action Plan (2021) • Scotland's Energy Strategy Position Statement (2021)
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8. IMPACT ASSESSMENTS

Assessment	Outcome
Impact Assessment	Completed – Impact Assessment considered through to Front End Engineering Design / Final Investment Decisions.
Data Protection Impact Assessment	Not required

9. BACKGROUND PAPERS

9.1 The following papers were consulted in the preparation of this report:

- Net Zero Vision and Infrastructure Plan – PLA/20/088 – Urgent Business Committee – 6 May 2020
- Aberdeen Hydrogen Hub Programme – COM/20/185 – City Growth and Resources Committee – 28 October 2020
- General Fund Revenue Budget and Capital Programme 2021/22 to 2025/26 – RES/21/055 – 10 March 2021
- Hydrogen Hub Preferred Bidder Appointment – COM/21/269 – Urgent Business Committee – 25 October 2021

10. APPENDICES

Appendix A – Summary of Preferred Bidders Solution

Appendix B – Business Case

Appendix C – Comparison of Preferred Bidders Solution with Council Objectives

Appendix D – Legal Agreements Overview and Governance

Appendix E – Project Risk Profile

11. REPORT AUTHOR CONTACT DETAILS

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