

ABERDEEN CITY COUNCIL

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COMMITTEE	Finance, Policy & Resources
DATE	1 February 2018
REPORT TITLE	Low Carbon Travel Transport Fund
REPORT NUMBER	CHI/17/315
DIRECTOR	Bernadette Marjoram
REPORT AUTHOR	Laura Paterson

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**1. PURPOSE OF REPORT:-**

- 1.1 This report is to update on Transport Scotland's Low Carbon Travel and Transport (LCTT) Fund.

**2. RECOMMENDATION(S)**

- 2.1 It is recommended that Committee:
- a) Notes Aberdeen City Council's potential participation in Transport Scotland's Low Carbon Travel and Transport (LCTT) Challenge Fund;
  - b) Notes that participation is subject to:
    - (i) Submission of a successful application to the LCTT Challenge Fund for grant funding of £1,014,772;
    - (ii) Submission of a final business case for the project to a future Policy & Resources Committee;
  - c) Notes that potential match funding from the Council of £434,903 towards the capital cost of the project Council will come from the existing AECC contingency budget; and
  - d) Notes the draft business model which has been developed for the operation of the AECC Refuelling Hub and the associated expenditure and revenue streams.

**3. BACKGROUND**

- 3.1 Transport Scotland's Low Carbon Travel and Transport (LCTT) Challenge Fund aims to facilitate the delivery of active travel and low carbon transport hubs. Grants of up to 70% are available to support projects with total costs of up to £2million.

- 3.2 Participation in this project will facilitate the development of a Low Carbon Refuelling Station at the site of the new AECC. The AECC Refuelling Station will provide refuelling facilities for low carbon vehicles. This infrastructure will consist of charging points for electric vehicles and hydrogen refuelling facilities similar to the existing site at Langdykes Road in Cove for hydrogen vehicles.
- 3.3 The AECC design incorporates an Energy Centre which is an onsite testing and demonstration facility for renewable energy technologies. This includes an onsite electrolyser which can produce high grade hydrogen which could be used as a transport fuel with the correct supporting infrastructure. The development of a new hub at the AECC site will enable this hydrogen to be used, including for vehicle refuelling.
- 3.4 There will also be facilities for refuelling of electric vehicles. This will be designed as a traditional refuelling station, with rapid electric charging dispensers instead of plug-in infrastructure. This will be a first in the city.
- 3.4 In addition to the refuelling infrastructure, the project will utilise the education facilities at the AECC to promote low carbon transport. The city's car club will have the option to have spaces allocated onsite and provide the public with opportunities to trial electric and hydrogen vehicles. Active travel to/from the site will also be encouraged with easy access to public transport infrastructure and extensive cycle parking throughout the site.
- 3.5 The UK Government has announced that the sale of new diesel and petrol vehicles will be banned from 2040, with the Scottish Government reducing this deadline further to 2032. The upscaling of Ultra-Low Emission Vehicles (ULEVs) will need to be supported through the promotion of the technology to the public and business sectors and development of the infrastructure to support the vehicle deployment.
- 3.6 The success of the AECC Refuelling Station will be dependent on demand for ULEV refuelling infrastructure. There are projects and discussions ongoing to increase hydrogen vehicles in the city, including the introduction of roadsweepers and garbage trucks to ACC Fleets, additional hydrogen buses and working with taxi companies to integrate ULEVs into existing fleets.
- 3.7 Participation in this programme supports the strategic aims of Aberdeen City Council as identified in several policies, including:
- 3.7.1 *Local Transport Strategy 2016-2021*  
"To facilitate the uptake of ultra-low and low emission vehicles as a contribution towards improving air quality in the City."
- 3.7.2 *Aberdeen City & Region Hydrogen Strategy and Action Plan 2015-2025*  
"Develop hydrogen refuelling infrastructure."
- 3.7.3 *Powering Aberdeen*  
"Promotion of sustainable travel initiatives" and "Development of hydrogen network"

### 3.7.4 Regional Economic Strategy

“To maximise the potential of hydrogen, energy from waste and other renewable technologies to develop a medium-long terms demand for the transferable skills in the oil and gas sector.”

3.7.5 The latter of which was highlighted in the Scottish Government’s draft Scottish Energy Strategy which identified the importance of hydrogen in meeting future transport and energy requirements.

## 4. FINANCIAL IMPLICATIONS

4.1 This project will have a capital budget of £1,449,675.

4.2 The maximum intervention rate of the LCTT Fund is 70%. This rate has been submitted in the application and a grant of £1,014,772 requested from Transport Scotland.

4.3 The remaining £434,903, representing 30% of the estimated capital costs, is to be funded from the AECC project’s existing contingency budget.

4.4 Costs of the Refuelling Station were calculated from a feasibility study completed at the end of 2016. Projected revenue costs and income were included in this study until 2040 and are included in Appendix 1.

4.5 The first five years of operation of the new facility are summarised in the table below:

	Year 1 £	Year 2 £	Year 3 £	Year 4 £	Year 5 £
<b>Income</b>					
Refuelling Fees	(19,934)	(29,433)	(42,342)	(57,488)	(74,373)
<b>Expenditure</b>					
Maintenance	49,500	49,500	49,500	49,500	55,500
<b><u>Operating Deficit/ (Surplus)</u></b>	29,566	20,067	7,158	(7,988)	(18,874)

4.6 It is anticipated that operating the site will result in a deficit in the first three years and surpluses generated from Year 4 onwards. The AECC financial model, which has been through a robust financial due diligence exercise, indicates sufficient revenue generated on site to offset any funding shortfall in the first three years of this proposal. The funding shortfall in the first three years will be met by income generated by the whole AECC Development.

4.7 The Business Model for the AECC Refuelling Station is similar to the existing station at Langdykes Road, Cove. Demand for this new site, as identified in the five year plan, will be generated by a car fleet which is expected to be in place by the time the facility opens.

4.8 Projected revenue costs as calculated in the feasibility study are presented in Appendix 1.

## **5. LEGAL IMPLICATIONS**

- 5.1 Entry into the grant agreement is subject to review by the Commercial and Procurement Services Legal Team. The Head of Legal and Democratic Services will ensure that the grant terms are appropriate. Entry into any grant agreement is only signed once reviewed by the above, following consultation with the Head of Finance.

## **6. MANAGEMENT OF RISK**

### **6.1 Financial**

The Projects, Partnerships & Funding Team have significant experience of working with external funding bodies, working with delivery teams to ensure funding programme compliance which secures the payment of external funds.  
Risk – Low

### **6.2 Employee**

Staff who are involved in this project have the necessary Project Management skills attained through internal and external bodies.  
Risk – Low

### **6.3 Customer/Citizen**

Low carbon transport significantly reduces noise and air pollution in the city which has a positive impact on the health of citizens.  
Risk – Low

### **6.4 Environmental**

The development of low carbon transport infrastructure provides transport options with zero emissions and reduction in harmful pollutants.  
Risk – Low

### **6.5 Technological**

This project will result in infrastructure which continues to promote low carbon transport options. Producing hydrogen onsite at the Energy Centre within the AECC should lower the cost of hydrogen production which will ultimately reduce the price of the fuel, making it more attractive to consumers. Key Performance Indicators will be introduced to the project to measure these benefits.  
Risk – Medium

### **6.6 Legal**

All grant agreements are subject to review by the Heads of Legal and Democratic Services and Commercial and Procurement Services, following consultation with the Head of Finance.  
Risk – Low

### **6.7 Reputational**

Aberdeen is renowned as a European driver of hydrogen technology. The continued development of this technology ensures that the city maintains its international reputation as a leader in hydrogen and other low carbon technologies.

Risk – Low

## **7. IMPACT SECTION**

### **7.1 ECONOMY**

This project links into the North East's Regional Economic Strategy: "Further diversification into alternative energy technologies must be accelerated to complement work already being undertaken in shale gas, tar sands, hydrogen fuel cell supply chain opportunities, energy and carbon capture and storage and decarbonising food production."

### **7.2 PEOPLE**

This project will benefit citizens of Aberdeen through the upscaling and promotion of ULEVs. This has a positive impact on the health and wellbeing of citizens due to the reduced air and noise pollutants.

### **7.3 PLACE**

This project is of interest to the public in terms of the potential economic and environmental benefits that low carbon technologies can bring to the City including job creation as well as air quality improvements. Significant local and national air quality benefits can be derived from the deployment of low carbon vehicles offering zero exhaust emissions, reducing harmful pollutants such as nitrogen oxides (NO<sub>x</sub>), sulphur dioxides (SO<sub>x</sub>) and particulate matter (PM<sub>10</sub>).

### **7.4 TECHNOLOGY**

This project links Aberdeen City Region Hydrogen Strategy and the transport and energy priorities within Aberdeen – the Smarter City Vision to "define the image of an international 21<sup>st</sup> century energy city, leading a new leaner, cleaner, industrial revolution using the intensity of our social, business and community connection" and taking "a European lead in adapting new transport technologies" to "provide and promote a sustainable transport system, including cycling, which reduces our carbon emissions".

## **8. BACKGROUND PAPERS**

Aberdeen City Council:

CHI.17.303 – Aberdeen City Region Hydrogen Strategy 2015-2025 Update

Local Transport Strategy 2016-2021

Aberdeen City & Region Hydrogen Strategy and Action Plan 2015-2025

Powering Aberdeen

Regional Economic Strategy

Scottish Government:

Draft Scottish Energy Strategy

## **9. APPENDICES (if applicable)**

1. Revenue forecast for AECC Refuelling Station

**10. REPORT AUTHOR DETAILS**

Laura Paterson  
External Funding & Policy Officer  
[lapaterson@aberdeencity.gov.uk](mailto:lapaterson@aberdeencity.gov.uk)  
01224 523082

**HEAD OF SERVICE DETAILS**

Richard Sweetnam  
Head of Economic Development  
[rsweetnam@aberdeencity.gov.uk](mailto:rsweetnam@aberdeencity.gov.uk)  
01224 522662