

PERTH AND KINROSS COUNCIL**22 June 2016****River Tay Heat Pump and Network Project
Business Case****Report by The Director (Environment)**

The purpose of this report is to provide details of the outline business case for the River Tay Heat Pump and Network Project to be deployed at North Muirton as part of the Tay Eco-Valley initiative and recommends approving the financial package using funding from the Local Energy Challenge Fund, Commercial Property Investment Programme, Housing Improvement Programme and prudential borrowing.

1. BACKGROUND / MAIN ISSUES

- 1.1 At its meeting on 20 April 2016, the Strategic Policy and Resources Committee agreed to support the River Tay Heat Pump and Network project and asked for an outline business case to be submitted in order to finalise the financial package (Report 16/183 refers).

2. PROPOSAL

- 2.1 An outline business case is attached for consideration as Appendix 1. A summary is provided below.
- 2.2 The outline business case identifies three available options:
- Option 1 (Do nothing/do minimum): Replace existing electric heating systems in 400 social housing units with modern and more efficient gas fired boilers.
 - Option 2: Create a District Heating Network supplying affordable and renewable heat to 4 business plots, 211 social housing units, North Muirton Primary School and Colonsay Centre).
 - Option 3: Create a District Heating Network supplying affordable and renewable heat to 10 plots at the Perth Food & Drink Park, four community buildings (Primary and Secondary schools, day centres) and up to 500 social housing units.
- 2.3 The outline business case looks at the Strategic Case, the Economic Case, the Commercial Case and the Financial Case. As part of the Economic Case, available options have been assessed against the following project critical success factors:
- Provide sustainable low cost renewable heating to residences, thereby reducing fuel poverty,
 - Provide sustainable low cost renewable heating to businesses, thereby encouraging investment and job creation,
 - Reduce carbon emissions from heating,

- Create and operate an innovative renewable energy supply capable of being replicated elsewhere and being used as a flagship demonstrator.

Project Overview

- 2.4 The River Tay Heat Pump and District project will use water heat pumps to capture renewable energy from the ecologically sensitive River Tay without harming wildlife. It will create a District Heating Network supplying affordable heat to 4 business plots, 211 social housing units and North Muirton Primary School with the possibility of future expansion.

Benefits

- 2.5 The project will deliver the following benefits:
- It will reduce fuel poverty in one of the most deprived areas in Scotland by reducing bills and controlling tariffs - £46,700 annually. £200 per year from electric heating and £100 per year from gas heating for tenants.
 - It will reduce carbon emission by 450 tonnes CO2 / year
 - It will attract businesses to Perth Food and Drink Park allowing them to access cheaper heat and electricity from renewable energy. Thereby boosting their green credentials and promoting resource efficiency in the Food and Drink sector through an innovation hub.

Costs

- 2.6 The project costs are estimated at £8.2m and are apportioned, as follows:
- Energy Centre/innovation hub building and heat pumps (2MW) (to be located within plot 9 at Perth Food & Drink Park). The building will provide the business park with shared service facilities (e.g. reception, offices, meeting rooms) and promote resource efficiency in the Food and Drink sector. The costs of this element are estimated at £4.5m.
 - Heat network (2.3kms of pipe and related infrastructure) and individual heat interface units. The following buildings will be linked to the network: 4 plots including 5 small business units at Food and Drink Park, 211 residences and North Muirton Primary School. The costs of this element are estimated at £2.3m.
 - Development costs including contingency, planning and professional fees including project management. These costs are estimated at £1.4m

Finance

- 2.7 It is proposed to finance the scheme as follows:
- £2m from the Local Energy Challenge Fund (secured in principle subject to due diligence) towards heat pipe network
 - £1.4m from the Commercial Property Investment Programme towards the energy centre and innovation hub as approved on 20 April 2016.

- £0.2m from the Housing Improvement Programme towards the individual heat interface units as approved in the Capital Programme and £0.1m from contributions from businesses to be connected
- £4.5m from prudential borrowing to be repaid from heat sales and Renewable Heat Incentive over 20 years towards the cost of the energy centre building and heat pumps.

Risks

2.8 The following risks have been identified with related mitigation actions:

- Development risk: the project will require to secure planning and other consents within a tight timescale in an area with complex environmental constraints and flood defense requirements.
- Preliminary designs and water extractions have been discussed at an early stage with SEPA, SNH, Perth & Kinross Council Flood Team and Perth and Kinross Council Planners. Planning has indicated that an Environmental Impact Assessment (EIA) is not required and SEPA, SNH and the Flood Team have all indicated support. The Project Team will continue to engage with these bodies to ensure that consents are secured and deadlines are met. Early discussions are also taking place with possible affected parties.

Construction Risk

2.9 The construction will be complex and could be subject to delays. Preliminary design and pipe routes have been developed to minimise risk during construction using information provided by potential contractors and suppliers. The Project team will continue to liaise with potential contractors and suppliers as well as accessing specialist advisers such as flooding engineers, project management and procurement specialists. The construction programme will also be timed to minimise risk due to water levels or environmental constraints.

2.10 The Project team has established contacts with the St Andrews University Project Team, which is currently delivering a district heating project at Guardbridge. This resource will be used as part of peer review process.

Financial Risks

2.11 The overall financial viability is marginally positive with an IRR of 3.84% (Internal Rate of Return - metric measuring the profitability of potential investments). However, this may be affected by increased project costs or reduced income. The risks are:

1. The projects costs could exceed budget. A dedicated and experience project team will be set up with access to project management, procurement and technical advice. Procurement will be structured to minimise risk to the Council during construction. Contingency allocation has been built into the project budget to provide some flexibility. Go/No-Go stages have been included in the programme to allow financial assessments to be carried out to inform the decision process.

2. The projected income during construction and operation may not be sufficient to cover costs. Financial advice will be accessed to manage cash flow during construction particularly by putting in place bridging finance before income is generated (interest on loans will have to be paid on borrowing during construction years). Income from heat sales has been assessed and different scenarios of slower take-up have been tested and will require pro-active sales management during the construction phase and beyond. However, heat sales are either controlled by the Council (i.e Council's own buildings) or closely linked to the Council (e.g. Council's housing) which would facilitate take-up. Income from Renewable Heat Incentive (RHI) can drop depending on changes to UK Government incentive regimes. Sensitivity analysis has been carried out showing that project finance can be sustainable even with a slight fall of RHI income. However, pre-registration with Ofgem will be sought to determine as soon as practical level of RHI. Technical specifications have also been developed to meet RHI requirements. Project team will continue to liaise closely with Ofgem and potential contractors and suppliers to anticipate any issues.
- 2.12 To finalise the financial package and implement option 2 as detailed in the Outline Business Case, it is recommended that the Council borrow £4.5m to be repaid from heat sales and Renewable Heat Incentive over 20 years.
- 2.13 If the proposed scheme is successfully delivered, the network could be expanded towards Gowans Terrace to serve Perth Grammar School, North Inch Campus, other Council's buildings, Caledonian social housing providing 12MWh heat. This would place Perth scheme at the same level as other schemes in Europe. This scheme could be linked to other schemes in Perth as part of Heat Master plan.

3. CONCLUSION AND RECOMMENDATIONS

- 3.1 The River Tay Heat Pump and Network project is transformational and would help to boost enterprise, reduce fuel poverty and reduce carbon emission supporting Perth City Plan's ambitions to be smarter and fairer.
- 3.2 It is recommended that the Council agree to:
 - (i) Support option 2 as detailed in the outline business case for the development of the River Tay Heat Pump and Network project.
 - (ii) Note that the offer of £2m from the Local Energy Challenge Funding is finalised.
 - (iii) Borrow £4.5m to finalise financial package using prudential borrowing to be paid back through heat sales and income from renewable heat incentive.

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1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

Strategic Implications	Yes / None
Community Plan / Single Outcome Agreement	Yes
Corporate Plan	Yes
Resource Implications	
Financial	Yes
Workforce	No
Asset Management (land, property, IST)	Yes
Assessments	
Equality Impact Assessment	Yes
Strategic Environmental Assessment	Yes
Sustainability (community, economic, environmental)	Yes
Legal and Governance	Yes
Risk	Yes
Consultation	
Internal	Yes
External	None
Communication	
Communications Plan	Yes

1. Strategic Implications

Community Plan / Single Outcome Agreement

- 1.1 The Community Plan/Single Outcome Agreement 2013 – 2023 lays out five outcomes focussed strategic objectives which provide clear strategic direction, inform decisions at a corporate and service level and shape resources allocation. They are as follows:

- (i) Giving every child the best start in life
- (ii) Developing educated, responsible and informed citizens
- (iii) Promoting a prosperous, inclusive and sustainable economy
- (iv) Supporting people to lead independent, healthy and active lives
- (v) Creating a safe and sustainable place for future generations

- 1.2 This report relates to objective (iii) by supporting business growth at Food and Drink Park and strengthening clean and renewables sector as well as attracting investments. It also relates to objective (iv) by decreasing carbon footprint and reducing fuel cost in affordable housing.

Corporate Plan

- 1.3 The Council's Corporate Plan 2013 – 2018 lays out five outcome focussed strategic objectives which provide clear strategic direction, inform decisions at a corporate and service level and shape resources allocation. They are as follows:

- (i) Giving every child the best start in life;
- (ii) Developing educated, responsible and informed citizens;
- (iii) Promoting a prosperous, inclusive and sustainable economy;
- (iv) Supporting people to lead independent, healthy and active lives; and
- (v) Creating a safe and sustainable place for future generations.

- 1.4 This report relates to objective (iii) by supporting business growth at Food and Drink Park and strengthening clean and renewables sector as well as attracting investments. It also relates to objective (iv) by decreasing carbon footprint and reducing fuel cost in affordable housing.

2. Resource Implications

Financial

- 2.1 Capital – £1.4m funding towards the Energy Centre building are already contained in the CIP. £0.2m towards the individual heat units are contained in the Housing Improvement Programme. £0.1m will come from contributions from businesses willing to connect to the scheme. The report recommends approval to secure prudential borrowing of £4.5m.
- 2.2 Revenue – There is not anticipated to be any revenue implications arising from this project however there may be a requirement for up to a £130k bridging loan to cover the cost of interest over the construction phase.

Workforce

- 2.3 There is no workforce implications from the report.

Asset Management (land, property, IT)

- 2.4 Project will create new Council's assets which would be managed through contracted services funded from income generated by the project.

3. Assessments

Equality Impact Assessment

- 3.1 Under the Equality Act 2010, the Council is required to eliminate discrimination, advance equality of opportunity, and foster good relations between equality groups. Carrying out Equality Impact Assessments for plans and policies allows the Council to demonstrate that it is meeting these duties.
- 3.2 The information contained within this report has been considered under the Corporate Equalities Impact Assessment process (EqIA) and has been assessed as **not relevant** for the purposes of EqIA.

Strategic Environmental Assessment

- 3.3 The Environmental Assessment (Scotland) Act 2005 places a duty on the Council to identify and assess the environmental consequences of its proposals.

- 3.4 The information contained within this report has been considered under the Act. Pre-screening has identified that the PPS will not need an Environmental Impact Assessment.

Sustainability

- 3.5 Under the provisions of the Local Government in Scotland Act 2003 the Council has to discharge its duties in a way which contributes to the achievement of sustainable development. In terms of the Climate Change Act, the Council has a general duty to demonstrate its commitment to sustainability and the community, environmental and economic impacts of its actions.
- 3.6 The information contained within this report has been considered under the Act. The proposals will enhance socio economic and economic development opportunities to the benefit of businesses and local communities as well as environmental enhancement.

Legal and Governance

- 3.7 The Head of Legal Services has been consulted on these proposals. There are legal implications relating to entering into an agreement with the Energy Saving Trust for Local Energy Challenge Fund. There are also legal implications in creating a legal entity to operate the scheme when commissioned as well as legal implications from procurement and contractual arrangements with contractors and suppliers.

Risk

- 3.8 There are key risks associated with the proposed project.
- (i) Risks associated with Project Development/consents. This risk will be managed through a strategy and pro-active engagement with Development Planning, SEPA and SNH as well as other stakeholders.
 - (ii) Risks associated with the Project construction such as design and procurement of infrastructure and buildings. This risk will be managed by The Environment Service Senior Management Team and Project Board. External advisers will be recruited for project management, procurement and will take an active role in mitigating that risk and reporting regularly to the Head of Planning and Development. A procurement strategy will be developed
 - (iii) Risks associated with finance. This risk will be mitigated through close engagement with Finance team, close engagement with Ofgem and customers.
 - (iv) Risks associated with beneficiaries. This risk will be mitigated through engagement plan with stakeholders and in particular tenants via Housing and Community Care Services

4. Consultation

Internal

- 4.1 The Director (Education and Children Services), the Director (Housing and Community Care Services), the Head of Democratic Services, the Head of Finance and the Head of Legal Services have been consulted in the preparation of this report.

5. Communication

- 5.1 The projects will be promoted as part of the Tay Eco-Valley Initiative through Invest in Perth and opportunities explored to highlight key stages through local and national media. A communication and engagement plan will be developed to engage with beneficiaries such as tenants.

2. BACKGROUND PAPERS

No background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information) were relied on to any material extent in preparing the above report.

3. APPENDICE

Appendix 1: Outline Business Case

