

TITLE OF REPORT: ERDF Low Carbon project proposals

REPORT OF: Paul Dowling, Strategic Director, Communities and Environment

Purpose of the Report

1. To accept grant awards from the European Regional Development Fund (ERDF) for the following:
 - High Rise Energy Infrastructure for Gateshead Housing Tenants (HEIGHTs)
 - Bringing Plastic District Heating Technology to the UK
2. To approve the award of construction contracts for the delivery of the above, to:
 - Wilmott Dixon Construction, for the HEIGHTs Project
 - Balfour Beatty, for the Plastic District Heating Project

Background

3. The current European Structural Investment Fund (ESIF) 2014 – 2020 for the first time includes outputs to support development of energy efficiency and renewable energy projects to reduce energy use and greenhouse gas emissions.
4. A regional ESIF Strategy has been developed by the North East Local Enterprise Partnership (NELEP), which allocates £60m to the low carbon theme (Priority Axis 4 – Low Carbon Economy) of the European Regional Development Fund (ERDF).
5. The Council is currently developing a number of district energy schemes across the borough, to help meet its priorities around reducing carbon emissions, tackling fuel poverty, and generating cost savings or income. The use of ERDF funding to support the capital cost of delivering these projects will make these projects financially viable.

Proposal

6. It is proposed to accept grant awards to the ERDF Priority Axis 4 (Low Carbon Economy) for the following projects.

Project 1. High-rise Energy Infrastructure for Gateshead Housing Tenants (HEIGHTs).

7. The project will install new district heat and/or power systems to 7 High Rise Housing blocks in the Town Centre and Harlow Green.
8. The capital cost of this scheme is estimated to be £11.6m, which include £0.3m for internal fees, and £11.3m for external contractor costs. Of the scheme costs, £9.1m is eligible ERDF funding. ERDF will contribute towards 50% of the capital costs, equating to £4.55m of capital grant funding, and 50% of the revenue costs of

managing and delivering the construction phase, equating to £0.11m of revenue grant funding. The required match funding will be provided by the HRA.

9. It is proposed to appoint Wilmott Dixon Construction to deliver the scheme, via the SCAPE Major Works Framework in order to comply with ERDF procurement requirements.

Project 2. Bringing Plastic District Heating Technology to the UK.

10. This project will install a new district heat and private wire connection from the Town Centre District Energy scheme to the Gateshead Leisure Centre area. The project will use a new type of plastic district heating pipe, which will be brought to the UK for the first time
11. The estimated capital cost of this scheme is in the region of £2.35m, of which £1.73m is eligible for ERDF funding. ERDF will contribute towards 50% of the ERDF eligible capital costs, equating to £0.86m of capital grant funding, and 50% of the revenue costs of managing and delivering the construction phase, equating to £0.03m of revenue grant funding. The required match funding will be provided by the General Fund.
12. It is proposed to appoint Balfour Beatty to deliver the scheme, via the SCAPE Civil Engineering and Infrastructure Framework in order to comply with ERDF procurement requirements.
13. Both projects are going through final stages of project appraisal, by the Managing Authority for the ERDF grant, and should both projects be successful, it is expected that grant awards will be received before 8 November 2016, and require signed acceptance before the Autumn Statement (23 November 2016), to be committed.

Recommendations

14. It is recommended that:-
 - (i) Approval is given to accept an ERDF grant of £4.66m, comprising of £4.55m capital grant and £0.11m revenue grant for the HEIGHTs project;
 - ii) Approval is given to accept an ERDF grant of £0.89m, comprising of £0.86m capital grant and £0.03m revenue grant for the Plastic District Heating Project;
 - (iii) Approval is given to award a contract of up to £11.3m to Wilmott Dixon Construction, for delivery of the HEIGHTs project;
 - iv) Approval is given to award a contract of up to £2.35m to Balfour Beatty, for the delivery of the Plastic District Heating Project;
 - v) Approval is given to delegate authority to the Strategic Director, Communities and Environment, following consultation with the Strategic Director, Corporate Resources, to agree the final terms, scope and costs of the contract awards.

For the following reasons:

- (i) To continue to deliver Council priorities around reducing fuel poverty, energy consumption and carbon emissions.
- (ii) To support initiatives to generate costs savings and income streams for the Council.
- (iii) To secure significant external grant funding to support capital investment as part of the Council's Capital Programme.

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APPENDIX 1

Policy Context

1. On a local level, the proposals will contribute to the delivery of many targets within Vision 2030, strategic interventions within the Council Plan, the Council's Climate Change Strategy and other Council strategies and commitments, specifically:
 - Helping to alleviate fuel poverty for residents, by providing lower cost heat;
 - Reducing energy consumption and carbon emissions of homes and public buildings in the borough.
 - Reducing carbon emissions of homes and public buildings.
2. The proposals will also accord with the provisions of the Corporate Asset Strategy and Management Plan 2015 – 2020. In particular; ensuring that the Council's properties are fit for purpose and the continuous improvement of the sustainability of the Council's assets;

Background to ERDF programme

3. The two outline project proposals submitted to the low carbon theme (Priority Axis 4 – Low Carbon Economy) of the European Regional Development Fund (ERDF) were successful, and the Council was invited to submit full applications for both projects.
4. Cabinet approval to submit applications was received in July 2016, and officers were delegated to complete the exact terms and scope of the final applications, which were submitted to DCLG by August 2016.
5. Nationally, the UK Government has confirmed that it will commit to any ERDF projects that have grant awards approved and agreed by all parties, before the Autumn Statement, which is due on 23 November 2016.
6. At present, both projects are going through final appraisal at DCLG, for approval in late October, after which the Council will be notified of the outcome.

Proposal 1. High Rise Energy Infrastructure for Gateshead Housing Tenants (HEIGHTs)

7. The project will install new district heat and/or power systems to 7 High Rise Housing blocks in the Town Centre and Harlow Green.
8. Since Cabinet approval to submit final applications in July 2016, the project scope has been reviewed in response to increased scheme costs to ensure that the investment was considered to be financially viable. The project scope has therefore been amended as follows:
 - i. Project includes Regent Court, and 6 Harlow Green blocks (Acomb, Bedale, Ripley, Willerby, Stretford, Barford Courts), plus a connection to Angel Court
 - ii. We have had to remove Bensham Court and other public buildings (Southernwood, St Anne Primary School), from the project scope. It was

also confirmed that the inclusion of Barnes Close flats and Mulgrave Villas was not financially viable.

iii. Technologies used have been revised, to optimise the financial viability of the scheme as follows:

1. Regent Court – heat only, supplied from town centre district energy scheme
2. Ripley, Willerby, Acomb, Bedale, Angel courts – heat only, supplied from Ground Source Heat pumps
3. Stretford, Barford – heat and power, supplied from a small combined heat and power plant.

9. Alongside the ERDF project proposal, it is proposed to co-ordinate the following other, non-ERDF, block improvement works, to improve the sustainability of the properties, seek efficiencies in the construction phase, and minimise disruption to tenants,

- Window replacement for all Harlow Green high rise blocks
- Façade replacement for Regent Court

Capital Element

10. The table below outlines the revised capital cost plan, for the HEIGHTs scheme, which is equivalent to RIBA Stage 2. The expected scheme funding is summarised as follows:

Capital Funding	ERDF Eligible £000's	ERDF Ineligible £000's	Total £000's
General Fund	-	(100)	(100)
HRA Capital Programme	(2,173)	-	(2,173)
HRA Capital Receipts	(2,386)	(2,340)	(4,726)
ERDF Grant	(4,558)	-	(4,558)
Total Capital Element	(9,117)	(2,440)	(11,557)

11. The capital cost is still subject to RIBA Stage 3, and full subcontractor tendering, but currently include a 10% contingency, as allowed by ERDF criteria to manage the risk of further potential increases.

12. In accordance with European Union regulations (Regulation 1303/2013 Article 61) the potential income generated by the project must be considered as part of the application process. Where it is not possible to accurately project the revenue which will be generated with a reasonable degree of confidence in advance of the scheme commencing, then the actual net revenue generated by the scheme will be reviewed after the first three years.

13. Given that ERDF are funding 50% of the eligible capital costs of the project, they are then entitled to receive 50% of the net revenue that has been generated during this period. This cost would need to be met by the HRA, but it is directly linked to the actual performance of the scheme.

14. The reasons we cannot accurately forecast future energy cost and incomes (within the 10% allowed flexibility), are due to the following:

- a. Gas price is currently volatile, having reduced by 50% over the past 3 years;
 - b. Changes to energy levies (Climate Change Levy, Carbon Reduction Commitment) are due to come into force in 2019 which will be the first year of scheme operation and may further alter pricing.
15. Within the overall scheme cost is the cost of a pre-construction contract, valued at £0.387m, which would need to be carried out between December 2016 and March 2017, to confirm pre-construction information and detailed design.
16. The element of the project considered ineligible for ERDF funding primarily relates to the Ground Source Heat Pump (GSHP) systems, costing £2.34m. This element of the project already attracts external funding in the form of Renewable Heat Incentive (RHI) income, which can then be used to recover the capital costs. In addition, the connection of Regent Court to the town centre district energy scheme, costing £0.1m, will be leased to Gateshead Energy Company and is considered to be commercially viable without the use of external funding so has also been excluded from the scope of the ERDF project.
17. The Council intends to seek contribution from the 62 leaseholders, potentially amounting to £0.175m in total. It is estimated this may equate to £1,500 per property for Regent Court (equivalent to cost of new boiler) and £3,000 per property for Harlow Green blocks (equivalent to cost of new boiler and central heating system). This would displace the use of HRA capital receipts if contributions can be secured.

Revenue Element

18. The delivery of the project requires input from staff within the Council and Gateshead Housing Company. These costs are also considered eligible for ERDF grant funding with ERDF prepared to support 50% of the direct costs, supported by timesheets, along with a fixed contribution of 15% towards the associated overheads. The table below summarises the revenue cost estimates associated with the delivery of the project:

Revenue Cost	£'000s
Council Staff Costs	93
Council Overhead Contribution	14
TGHC Staff Costs	75
TGHC Overhead Contribution	11
Project Monitoring / Evaluation	27
Total Revenue Cost	220
ERDF Grant Funding	(110)
HRA Revenue Resources	(110)

Operating model and Business Case

19. The HEIGHTs heat networks will be owned and operated by the Council (with the exception of the small heat connection between Regent Court main plant room and the town centre network). The following operating principles will be applied to each heat network as follows:

- a. Regent Court.
 - i. Council purchases heat from external heat supplier (for example, Gateshead Energy Company) at commercial rates.
 - ii. Council sells on heat to tenants, at ca. 10% discount to domestic rates, via prepayment meters
 - iii. Operating costs of network are covered by margin between commercial and domestic heat rate

- b. Acomb, Bedale, Ripley, Willerby, Angel Court (GSHP systems)
 - i. Each household (except Angel Court) is installed with its own heat pump
 - ii. Tenants operate heat pump using their own electricity supply
 - iii. Council charges a fixed standing charge to tenants, to recover fixed operating costs of ground water loop.
 - iv. For Angel Court, single large heat pump is installed, to become primary heat source, in place of existing gas boilers.

- c. Stretford, Barford Court (CHP system)
 - i. A combined heat and power engine, plus gas back up boilers, provide heat to each household, with Council paying for all running costs
 - ii. Council sells on heat to tenants, at ca. 10% discount to domestic rates, via prepayment meters
 - iii. Council sells electricity to a licenced electricity supplier at premium to wholesale rates, for onward sale to tenants.

- 20. Separate cost centres will be established within the HRA, to manage costs/incomes of each mini-heat network which will be required to determine the net revenue position. The Council's Energy Services Team will be responsible for managing all operation and administration of mini-heat and power networks, within these cost centres. The administration fee is included within the estimated operating/maintenance costs of the project.

- 21. Whilst it is not possible to accurately project the income the scheme is expected to generate with sufficient certainty to satisfy ERDF audit requirements, a Council base case model has been prepared for the full scheme based upon current prices to provide comfort that the scheme is considered to be financially viable.

- 22. In addition to the potential income the scheme will generate, the Council base case model considers the potential operating costs, including fuel, maintenance, lifecycle replacement costs and administration over the lifetime of the scheme.

- 23. The Council base case model suggests that the whole scheme, including the non-ERDF elements, is expected to generate sufficient income through the sale of heat to tenants, export of electricity and through the receipt of RHI Income to meet the ongoing operating costs in full as well as recovering the HRA's initial investment.

- 24. It is estimated that the net revenue generated over the first three years of the operation may be in the region of £0.3m, which would result in £0.15m being paid to ERDF.

- 25. The following are the anticipated outputs of the HEIGHTs project:

- Financial savings of 10% to up to 622 householder energy bills, equivalent to at least £100 per year;
- Improvement to SAP energy rating of properties (Corporate Indicator), and improvement of thermal comfort, to reduce fuel poverty and cold-related health issues;
- Revenue savings to HRA, from reduced maintenance cost for heating systems and gas safety checks;
- Installation of modern, new heating systems for 622 properties;
- Carbon savings of 1,200 tonnes per year.

Proposal 2. Bringing Plastic District Heating Technology to the UK Market

26. The ERDF funded project aims to install mini-heat network, from Gateshead Civic Centre, to the Leisure Centre Cluster (Gateshead Leisure Centre, Central Library, Prince Consort Road offices, Shipley Art Gallery), using a new, plastic insulated pipe system. Alongside the ERDF funded project, the Council will also fund the installation of a private wire connection, along the same route. As this is considered to have a commercially viable business case, it is not eligible for ERDF funding.
27. The proposed contracting approach is through using SCAPE Civil Engineering and Infrastructure Framework, with Balfour Beatty as main contractor. The Council has already signed a project request, as of 1st September, and Balfour Beatty are preparing an initial proposal, at no cost to Council. This should be received by 1st November 2016

Capital Element

28. The table below outlines the revised capital cost plan, for the Plastic District Heating project, which is equivalent to RIBA Stage 2. Scheme funding is summarised as follows:

Funding	ERDF Eligible £000's	ERDF Ineligible £000's	Total £000's
General Fund	(864)	(610)	(1,474)
ERDF Capital Grant	(864)	-	(864)
Total Capital Element	(1,728)	(610)	(2,338)

29. The capital cost is still subject to RIBA Stage 3, and full subcontractor tendering, but currently include a 5% contingency to manage the risk of further potential increases.
30. In the same manner as the Heights scheme, given that ERDF are funding 50% of the eligible capital costs of the project, they are then entitled to receive 50% of the net revenue that has been generated during the first three years. This cost would need to be met by the General Fund, but it is directly linked to the actual performance of the scheme. For this scheme, this is likely to be minimal as the ERDF project operates broadly on a breakeven basis.

Revenue Element

31. The delivery of the project requires input from staff within the Council. These costs are also considered eligible for ERDF grant funding with ERDF prepared to support 50% of the direct costs, supported by timesheets, along with a fixed contribution of 15% towards the associated overheads. The table below summarises the revenue cost estimates associated with the delivery of the project:

Revenue Cost	Cost £'000s
Council Direct Staff	52
Council Overhead Contribution	8
Total Revenue Cost	60
ERDF Revenue Grant	(30)
General Fund Revenue Resources	(30)

Business case and operating model

32. Once built, the mini heat network will remain owned and operated by Gateshead Council, and will not form part of the main district energy scheme, as it is hydraulically separate. Instead, the Council will purchase heat from a third party heat supplier, at a supply point within the Civic Centre boiler house. The Council will then use this heat within existing Council buildings, helping to reduce existing energy costs, and sell heat to Shipley Art Gallery.
33. The non-ERDF element of the scheme consists of a private wire network, as a continuation of the existing high voltage network which will be leased to and operated by a third party electricity supplier, in return for a concession fee. The electricity supplier will then directly supply electricity to buildings in the Leisure Centre cluster.
34. Whilst it is not possible to accurately project the income the scheme is expected to generate with sufficient certainty to satisfy ERDF audit requirements, a Council base case model has been prepared for the full scheme based upon current prices to provide comfort that the scheme is considered to be financially viable.
35. In addition to the potential income the scheme will generate, including revenue savings to existing energy costs, the Council base case model considers the potential operating costs, including energy, maintenance, lifecycle replacement costs and administration over the lifetime of the scheme.
36. The Council base case model suggests that for the ERDF element of the scheme the savings to Council buildings from avoided gas use, plus heat sales to Shipley Art Gallery, are sufficient to meet the operating costs in full.
37. The private wire network element of the scheme is considered to be commercially viable and is expected to generate sufficient income through the concession charge to recover the initial investment costs for the scheme and generate a revenue surplus for the Council.
38. The anticipated outputs of the Plastic Heating scheme are as follows:

- Revenue savings to existing Council buildings through the provision of lower cost heat as well as avoiding potentially significant future costs associated with the maintenance and replacement of existing heating systems;
- Ability to introduce a new technology to the UK which may help to improve viability for future energy projects;
- Council to charge a concession fee, for use of the 1.3 km private wire network, generating an ongoing revenue income stream;
- Carbon saving of 400 tonnes per year;
- Potential for further benefits to be realised in the scenario that Gateshead Energy Company are successful in winning the procurement exercise to operate the private wire network.

Consultation

39. The following consultation has taken place on the scheme:

- Outlined scheme proposal to Members' Seminar, 16th June 2016.
- Consultation with Transport and Environment, and Housing Portfolio members
- Consultation with Ward members

Alternative Options

40. **Do not accept the grant awards.** In this scenario, the Council would lose the opportunity to secure grant funding, and hence the wider benefits of these schemes. The external funding is required to make it financially viable to proceed with these schemes.

Implications of Recommended Option

41. **Resources:**

- a) **Financial Implications** – The Strategic Director, Corporate Resources, confirms that the two proposed schemes are expected to involve capital investment of £13.90m which will be included in the Council's Capital Programme. Accepting the ERDF grant offers will provide £5.42m of capital grant towards this cost.

The HEIGHTs project has an estimated capital cost of £11.56m, including non-ERDF elements, and will receive £4.56m of ERDF capital grant funding. The remaining match funding will be accommodated from within the HRA Capital Programme (£6.9m) and General Fund Capital Programme (£0.1m). It is proposed to utilise HRA capital receipts to supplement the existing HRA Capital Programme to ensure that the decision to support the scheme does not impact on other planned investment over the medium term.

The Plastic District Heating project has an estimated cost of £2.34m, including non-ERDF elements, and will receive £0.86m of ERDF capital grant funding. The remaining match funding will be accommodated from within the General Fund Capital Programme (£1.48m).

The revenue cost of delivering the scheme over 2 years is estimated to be in the region of £0.28m, and the ERDF grant offer includes a £0.14m grant

towards these costs with the required match funding provided from existing Council and Housing Company revenue budgets.

To comply with the ERDF funding conditions, the Council will also be required to pay 50% of any net revenue generated through the first three years of operation to ERDF. This will be monitored once the scheme is operational and provision will be made to make this payment within the relevant revenue budgets in future. It is estimated this could be in the region of £0.15m.

The Council's base case model suggests that both schemes should generate sufficient revenue income to meet the ongoing operating costs associated with the scheme and meet the initial investment costs. There is the potential to generate a share of further surplus income depending upon the outcome of the procurement process regarding the energy supply to the Plastic District Heating network.

- (b) Human Resources Implications** – Existing officers within the Council and Gateshead Housing Company will be used to deliver the projects over 2 years, and the revenue grant funding will part cover the costs of those posts for the duration of the projects.
- (c) Property Implications** - The scheme will provide a modernised heating system for 7 tower blocks included in the scheme including new wet distribution systems, radiators and heat meters within resident's flats. It will also provide low carbon heat and power supplies to 3 Council buildings, and 1 external partner.

42. Risk Management Implications – As with other energy projects the Council is delivering, there are a number of significant risks inherent in delivering energy projects. In addition, seeking ERDF grant funding adds further risk to the project. The current risks, and how they are mitigated, are below:

- **State Aid.** Both projects have potential State Aid implications. For HEIGHTs, the analysis suggests that the Council would not be in receipt of State Aid. For Plastic District Heating, the Council believes we can rely on a General Block Exemption for constructing district heating networks. However, the risk remains that an auditor may take a different interpretation. Based on the Council's experience of managing State Aid for other ERDF scheme, the risk of challenge is low, but the impact could be significant if our level of allowable State Aid was reduced, and a proportion of funding had to be repaid.
- **Grant Claims.** ERDF grant claims are quarterly in arrears, and importantly underspend / overspend cannot be transferred between calendar years. Cost profiles have been modelled as accurately as possible, by the contractor, but changes to programme could increase risk on not being able to carry forward unspent grant from one year to next. This will require effective project management. It is also likely that 10% of the grant will be withheld by ERDF until the net revenue position has been confirmed for the first three years so there will be a cashflow implication for the Council to manage.

- Cost. Cost plan is based on RIBA Stage 2, and is likely to vary during pre-construction stage design. Contingencies are included (10% HEIGHTs, 5% for plastic district heating) to mitigate this risk. Also ERDF have stated RIBA Stage 3 costs are required, prior to award. A dispensation of this requirement has been requested, whilst we attempt to complete Stage 3 costs by mid-November.
- Grant Clawback. With ERDF schemes there are risks regarding clawback if there are deemed to be funding conditions that have not been complied with. Effective project management, strict document retention procedures and ongoing engagement with the Managing Authority for the programme helps to minimise this risk. The application details the proposed procurement route and this has not been challenged by the Managing Authority.
- Interface to other HRA works. All works are planned alongside other HRA improvement works (window replacement, façade replacement). Works would need to be co-ordinated to manage Health and Safety issues, and ensure programmes align, and do not risk each other, with the detailed options still to be explored.
- Conditional grant awards. ERDF generally cannot commit any grants until planning approval has been received. This is only an issue for HEIGHTs, where planning approval is expected March 2017. Any spend to that point is still eligible for ERDF grant but will be at the Council's risk, and subject to achieving planning approval, but there is no indication planning cannot be achieved.
- Procurement. The Council will need to procure a heat supplier for Regent Court and the Plastic District Heating network. Whilst only Gateshead Energy Company is currently known to be in a position to supply heat, the opportunity will need to be subject to advertisement to comply with ERDF requirements.
- Technical risks. Viability of each scheme is still subject to detailed survey. For example, if ground conditions prevent GSHP schemes at any one site, we have option to change technologies between sites, or specific an alternative technology.
- Tenant engagement. The HEIGHTs scheme already models 5% void rate (from either void properties, or non-participation of tenants / leaseholders). We have invested in tenant liaison services, to maximise engagement with tenants, to minimise likelihood of non-access issues.
- Renewable Heat Incentive. Significant incomes to the non-ERDF HEIGHTs schemes depend on the continuation of the Renewable Heat Incentive, which like all govt. subsidies, is subject to change. The most recent government consultation on RHI indicates that while the scheme is being reviewed and streamlined, support for GSHP systems is not being proposed to be altered, as uptake is still lower than projected (unlike other areas, such as biomass boilers).

- Heat sales to tenants. Recovery of HEIGHTs ERDF scheme costs rely on heat payments from customers. This is mitigated in Regent Court and the CHP scheme, by installation of pre-payment meters. For the other blocks, served by GSHP, tenants remain responsible for purchasing electricity to run their heat pumps, but then pay a fixed charge to Council. This introduces a risk of non-payment.

43. Equality and Diversity Implications – The heat and power supplies will be offered to all tenants across the named blocks, with tenant liaison services supporting the engagement of all customer groups, including all equality and diversity groups.

44. Crime and Disorder Implications – None.

45. Health Implications – The quality and standard of maintenance of the properties and the heating scheme will contribute to the health and wellbeing of the tenants in the blocks.

46. Sustainability Implications. - The scheme will reduce domestic carbon emissions in Gateshead by reducing energy consumption and replacing existing heating with lower carbon alternatives.

47. Human Rights Implications - Nil

48. Area and Ward Implications - The schemes are in the Bridges Ward (Regents, Leisure Centre Cluster), Chowdene Ward (Harlow Green blocks) in the Central and South areas.

Background Information

49. ERDF Low Carbon grant funding applications, Cabinet Report, July 2016