

Nottingham City Council Delegated Decision



Nottingham
City Council

Reference Number:

3884

Author:

Philip James

Department:

Commercial and Operations

Contact:

Katie Greenhalgh

(Job Title: Energy Projects Manager, Email: katie.greenhalgh@nottinghamcity.gov.uk, Phone: 01158762460)

Subject:

D2Grids minewater heating feasibility study

Total Value:

£110,000 (Type: Nil)

Decision Being Taken:

1) Accept £82,000 ERDF Interreg NWE funding for "D2Grids" minewater heating feasibility study. 2) Accept £28,000 of match-funding from the Midlands Energy Hub for "D2Grids" minewater heating feasibility study. 3) Authorise the procurement of external consultants to deliver the feasibility study. 4) Authorise dispensation from Contract Procedure Rule 5.1.2 in accordance with Financial Regulation 3.29 to award the contract direct award of a sub-section of the feasibility study to the Coal Authority with a value of £10,000.

Reasons for the Decision(s)

NCC Energy Services has secured funding from the ERDF Interreg North-West Europe (NWE) funded D2Grids project. The D2Grids project aims to: "Increase the share of renewable energy by accelerating the roll-out of demand-driven smart grids delivering low temperature heating and cooling to NWE cities". Specifically, in Nottingham the project aims to pilot a new District Heating Network using mine water as a heat source to circa 60 homes managed by Nottingham City Homes in the Crabtree Farm area. The project has two phases: Phase 1 - Feasibility, and Phase 2 - Investment. Initial investigation of the proposal to use mine water as a heat source for district heating has been positive and indicates that the technology could be viable in Nottingham. Initial investigations have also confirmed the potential for the technology to provide a highly efficient, low carbon form of heat - vital as we explore alternatives to fossil fuel heating systems. We are therefore keen to proceed with the feasibility study to assess in detail the potential of this technology in Nottingham. For the feasibility study (Phase 1), NCC has secured the ERDF Interreg NWE grant (74% of project cost) and has secured match-funding from the Midlands Energy Hub (26% of project cost). The Midlands Energy Hub sees this study as an opportunity to determine whether the technology and commercial model is viable and can be rolled out across suitable areas of the East and West Midlands. The proposal has been approved by the Hub Board and funding has been ring-fenced. We therefore seek approval to accept the ERDF funding and Midlands Energy Hub match-funding. The feasibility study will seek to:- Analyse below ground conditions including reviewing mine workings, geology, water quality etc.- Calculate energy demand and expected profiles, and perform a detailed study of potential houses to be supplied- Produce an outline scheme design- Produce a techno-economic model including sensitivity analysis- Investigate other factors to be considered for deliverability, including legal and regulatory. The specialist nature of the work to be completed means that the necessary knowledge and skills are not available within NCC and external consultants are required to complete the feasibility study. Consultants will be procured by an open tender process. A key part of the feasibility study is the below ground analysis and design of systems to extract and return water from former mine workings. The Coal Authority own the mine workings, are uniquely positioned to assess the technical and regulatory issues, and hold the databases of required information. Dispensation is therefore sought in this DDM to make a direct award to the Coal Authority for this aspect of the feasibility study. Given their vital contribution and unique capabilities, we would not wish to jeopardise their involvement or incur unnecessary administrative burden by procuring this aspect of the feasibility study in a competitive tender, when no alternative providers exist. The value of the direct award is £10,000 from a total budget of £110,000. Subject to the feasibility study reporting positively on technical and commercial issues, and the development of a business model to secure the required match funding (for example, from the Housing Revenue Account, BEIS Heat Network Delivery Unit, or other source), further approval would then be sought to proceed with Phase 2 - investment in the pilot for mine water District Heating to circa 60 homes. The project has the potential to provide low carbon and low cost heat to Nottingham City Homes tenants, contributing to environmental and fuel poverty strategies, including the City's ambition to become the UK's first Carbon Neutral City by 2028. The project will be vital in assessing the potential for this technology to be further rolled out across the city, utilising Nottingham's rich heritage as a mining area and exploiting this redundant network of flooded mines to provide an innovative new source of heat. This technology could also address challenges faced by developers as Building Regulation amendments seek to phase out the use of natural gas.

Other Options Considered: 1) 'Do nothing' - since funding and match funding is secured for the feasibility study, and the study will be of significant interest to carbon emission reduction and fuel poverty strategies this option is rejected.2) 'Produce the feasibility study in house' - since NCC Energy Services does not have the necessary knowledge, experience and skills to conduct the study we must procure external consultants to conduct the work.3) 'No direct award to the Coal Authority' - the Coal Authority have unique capabilities to analyse key technical and regulatory issues of drawing heat from former mine workings. Given their vital contribution and unique capabilities, we would not wish to jeopardise their involvement or incur unnecessary administrative burden by procuring this aspect of the feasibility study in a competitive tender, when no alternative providers exist.

Background Papers: None

Published Works: None

Affected Wards: Bulwell

Colleague / Councillor Interests: None

Dispensation from Financial Regulations: Yes

Use of Consultants

Number of Days: 120
Rate per Day: 917
Total value: 110000
Start date: 01/04/2020
End date: 31/07/2020

Reason for using a consultant: Procurement of external consultants to deliver the feasibility study is deemed vital due to lack of expertise found within NCC to complete this work.

Other options considered: Delivering work internally is not possible as we do not have relevant expertise.

Name of consultant: TBC following procurement

Reason for selection? n/a

Has the consultant previously completed work for the City Council? n/a

Specific activities to be undertaken by the consultant are:	Production of a mine water district heating feasibility study. The feasibility study will seek to:- Analyse below ground conditions including reviewing mine workings, geology, water quality etc.- Calculate energy demand and expected profiles, and perform a detailed study of potential houses to be supplied- Produce an outline scheme design- Produce a techno-economic model including sensitivity analysis- Investigate other factors to be considered for deliverability, including legal and regulatory
Period of engagement:	4 months
By what process was the consultant selected?	Work will go out to open tender using NCC procurement processes.
Consultations:	Those not consulted are not directly affected by the decision.
Crime and Disorder Implications:	Crime and Disorder implications should not arise for this project - a feasibility study into mine water district heating.
Equality:	EIA not required. Reasons: An EIA is not deemed necessary as issues around equality should not arise for this project - a feasibility study into mine water district heating.
Social Value Considerations:	n/a
Relates to staffing:	Yes
Decision Type:	Portfolio Holder
Subject to Call In:	Yes
Call In Expiry date:	09/06/2020
Advice Sought:	Legal, Finance, Procurement, Human Resources
Legal Advice:	This report does not raise any significant legal issues provided the contract is awarded in accordance with the City Council's Financial Regulations and any applicable ERDF funding rules. Advice provided by Andrew James (Team Leader Contracts and Commercial) on 25/03/2020.
Finance Advice:	See attachment. Advice provided by Tania Clayton Perez (Commercial Business Partner) on 19/03/2020. Advice documents: D2Grids Financial Obs.docx

Procurement Advice:

Procurement colleagues will assist with the tendering exercise to ensure that a fully compliant value for money agreement is entered into. Advice provided by Paul Ritchie (Lead Procurement Officer) on 27/02/2020.

HR Advice:

There are no significant HR implications in the proposed D2Grids feasibility study as the procurement of consultants to deliver the feasibility study will be undertaken through an invite for tenders. Also, consultants will not be directly employed by the Authority thereby limiting any future HR issues.

Advice provided by Shakeel Khalil (Senior HR Consultant) on 18/02/2020.

Signatures:

David Mellen (Leader/ PH Regeneration, Safety and Communications)

SIGNED and Dated: 30/03/2020

Sally Longford (PH for Energy, Environment and Democratic Services)

SIGNED and Dated: 01/04/2020

Andy Vaughan (Corporate Director Commercial and Operations)

SIGNED and Dated: 30/03/2020

Laura Pattman (Strategic Director of Finance) - Dispensation from Financial Regulations

SIGNED and Dated: 01/06/2020

Chief Finance Officer's Comments: