

Proposal: Heat Network Detailed Project Development resource: Economic and Financial Case



About Grant Thornton

Grant Thornton UK LLP ("GT") is a leading financial and business advisor to the public sector and corporate businesses and is a UK member firm of GT International Ltd. GT has a turnover of £521 million. It is led by more than 185 partners and employs more than 4,500 of the profession's brightest minds. We operate from 25 offices. GT has substantial experience of advising public sector and regulated bodies, whose activities are subject to close public scrutiny.

The firm delivers its services through a number of different operational divisions and the core team for this assignment comes from within the firm's Government and Infrastructure Advisory ("GIA") business unit. Our GIA team comprises 50 partners and staff with a broad range of backgrounds including accountants, economists and bankers. The GIA team operates out of offices across the UK, and has advised on more than 660 projects with a combined capital value of nearly £50 billion. A significant proportion of that has involved financial and commercial advice to public sector bodies and in particular local authorities. We have drafted or had significant input into literally hundreds of business cases applying HMT (including Green Book) guidance, many of which used the Five Case Model. GIA covers the following range of activities and market sectors: **Energy and Environment (E&E)**, Transport, Strategic Finance and Economics (including specialist financial modelling), Real Estate and Assets, and Healthcare Advisory.

The primary delivery team will be from our sector specialists in the E&E team. To ensure that we maximise the experience and capability of our offering, the team will be supplemented by sector experts from our other GIA market sector teams who have many years' experience in undertaking infrastructure business cases and developing guidance, so can assist in cold reviews (e.g. of user-friendliness), and bring views on sensitivity testing and optimism bias from other sectors. We will also be supported by our dedicated in-house National Research Group (NRG).

Members of our proposed E&E team have over 30 years combined experience of delivering infrastructure projects in the district energy and energy from waste sectors. Mostly this has been for local authorities and within that we have drafted or significantly input into the financial and economic cases of over 20 business cases. On a number of occasions, we have been responsible for delivering the entire business case, so we understand how all the five cases fit together. This will be important in ensuring our work on the financial and economic cases dovetails with the rest of the guidance, something that is especially important given the limited timescale to deliver the combined guidance.

We note below some selected relevant pieces of work the team has undertaken:

Project	Why this is relevant
Jointly appointed with AECOM to undertake the feasibility studies for the Middlesbrough & South Tees, Maidstone, Merton and Leicestershire HNDU backed District Heating (DH) projects. In the case of Middlesbrough & South Tees, this includes GT leading on the business case development.	Gives us a clear understanding of the objectives of the issues facing District Heating / District Energy projects in this sector and the delivery and financial issues associated with municipal district energy projects
Business case development for the Greater London Authority Decentralised Energy Project Delivery Unit (DEPDU) successor body	
Financial and Commercial Due Diligence for Enfield Council on the financial model supporting the Lee Valley Heat Network project	
Model development for Sheffield City Council District Heating scheme to assess Gross Value Added (GVA). This work involved consultation with, and presentations to DECC.	

Undertook the independent evaluation of the roll out of EMR working with Poyry. This is the largest independent evaluation DECC has ever commissioned and included a post project evaluation of the FID Enabling for Renewables energy infrastructure projects.	This major assignment included a very large literature review as part of the qualitative assessment and compliance with DECC's approvals processes
Developed the financial procurement guidance for DEFRA / Local Partnerships for the Waste PFI infrastructure programme. This programme was very similar in nature to the proposed HNDU programme	We are very familiar with writing effective guidance aimed at local authorities in complex infrastructure sectors where the diversity of technology, delivery structures, and revenue sources have much in common with those for heat networks
Developed the financial procurement guidance for Welsh Government for their Organic Waste infrastructure programme.	

Our Partners for this proposal

We have partnered with AECOM for this proposal. AECOM bring market leading technical expertise in the municipal DH space. They will provide additional capability on assessing the cost drivers and sensitivity parameters, and around optimism bias. AECOM will act as a 'technical steering group' throughout this piece of work. GT are familiar with working in collaboration with AECOM having partnered with them on a number of HNDU feasibility studies, as described above.

Understanding Your Requirements

Our experience means we fully understand what you are trying to achieve from this engagement and, equally importantly, we have put together a team that can provide the quality guidance you are looking to develop.

The Context

Given the 180 unique heat network projects (across 115 local authorities in England and Wales) to which HNDU has awarded support, there are likely to be a high number of projects reaching business case stage in the near future. Providing effective guidance to these local authorities in developing high quality business cases is likely to improve the chances of viable projects receiving investment approval. For DECC this is another critical tool in delivering its commitment to support local authorities to deliver heat networks. Whilst an HNDU Project Lead is allocated to each project, it is important that consistent and user-friendly guidance is developed to supplement and guide local authorities through the process of developing a robust and coherent business case to reflect the specifics of the district heating market in the UK.

Although district heating is much more prevalent in other (e.g. Scandinavian) countries, the market in the UK is emerging and this can manifest in a lack of confidence, understanding and resources available, in turn often increasing the base cost and risk pricing included in project development. Establishing principles in order to guide local authorities through the Business Case development process is key to inspiring confidence in the case for change, accessing funding required and building momentum in the market to unlock the extensive opportunity identified.

We understand that the key focus of this piece of work will be guidance in relation to developing the Economic and Financial elements of the Five Case Model are important to understand:

- **Economic:** the options under consideration, how these might impact (in terms of costs and benefits) key stakeholders and how the preferred option has been determined; and
- **Financial:** whether or not the project is affordable and how it will be funded.

Having developed infrastructure project guidance for local authorities, and in the case of municipal infrastructure business cases, worked with guidance across a range of sectors, we understand what guidance should look like so that it is user friendly, future proofed to the maximum extent possible, and is broad enough to cover the diverse nature of projects that will be assessed.

Methodology

Kick off Meeting

In order to establish key practical and strategic principles for the engagement, a kick off meeting will be held. We are keen to organise this kick-off meeting as soon as convenient to DECC given the tight timelines required for this contract, which we are committed to delivering against.

Literature Review

The first stage of this project will be to perform a consistent and comprehensive literature review of relevant documents in the market to access and classify quality information. NRG, which has a long-standing experience of gathering, structuring and interpreting large sets of numerical and qualitative data, will support this element of the work. Emma Grice (who managed the literature review elements of the work on the DECC EMR independent evaluation) will be dedicated to this project. For DECC EMR, her responsibilities included collating, storing and classifying publications according to agreed criteria, and creating a 'master contents' listing all documents gathered and containing document links.

Literature review framework

It will be important to set up a literature review framework / output template to ensure consistency of data recorded, enabling comparison and collation of the data captured. Our staff will be comprehensively trained on the information required to be captured and the referencing methodology, and this will be driven and standardised through the output template. We will use the literature review for the purposes of both benchmarking and identifying emerging themes. This information will then be collated to form the Literature review output, in Excel format, required by your ITT.

Storage and retrieval

The utmost care will be taken to ensure that data is classified / tagged effectively. Each document will be classified by a unique number, document type (see below), author, title, date published, location (within document management system), key themes and a quality rating. We propose the use of Huddle as a storage mechanism, as used for our EMR review.

Commercially-sensitive information and confidentiality issues

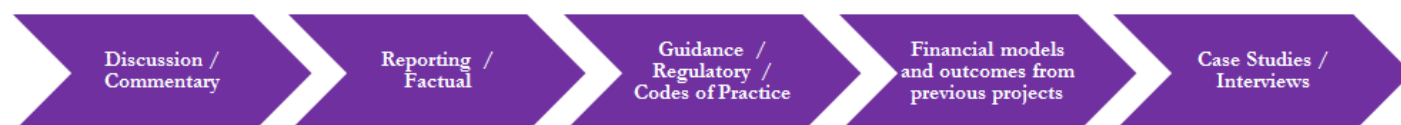
We have strong experience of managing and anonymising sensitive data and will maintain strict access rules and safeguards to ensure the highest standards of confidentiality, including where stakeholder engagement / interviews are undertaken.

The 'Universe'

We note that DECC has already suggested several documents for review and we will perform gap analysis on these to identify areas where additional documents could be added to the 'universe', which may include additional research / interviews. NRG has access to a wide range of global research tools including company databases, project databases, press commentary, as well as market research sources. We would propose to carry out a comprehensive review of the following in house tools as well as publicly available sources in order to identify additional commentary and reports to supplement the core publications supplied by DECC.

- Project databases – identification of projects and commentary from our key in house tools including Infranews, Infrastructure Journal and Clean Energy Pipeline
- Company databases – identification of key players and contractors to the Heat Network sector in the UK, and potential sector case studies
- Press and current awareness – review of key journals, newspapers and sector publications in order to identify relevant reports and commentary relating to Heat Networks in the UK

We would envisage the following key types of documents:



We note that there is only one document in the suggested listing which is specifically in relation a different country (i.e. Finland). We would wish to consider with DECC the use of international research, e.g. from International Energy Agency, or from countries where DH is well established.

Source Considerations

The value of data is intrinsically linked to its sources and the following are considered important to record and consider when performing the literature review:

- Age – if the document is old, is it still relevant?
- Context – is the document specific to a country / situation which might not be transferable?
- Purpose – if the document is considered to pursue an agenda, is it reliable?
- Quality of evidence – it may be that some evidence is anecdotal, contradictory, or that sufficient support is not available to make a conclusion
- Qualitative vs. quantitative - wherever possible we will seek to maximise the quantitative data

Test Document

We will develop a 'Test Document' which can be issued as part of the guidance to local authorities, detailing the sensitivity tests which a financial model should be subject to in order to assess the robustness of a case for change. We propose this is presented under the headings set out in Specific Question C, and includes guideline parameters on sensitivity ranges, how these link to optimism bias and risk management.

Weekly catch ups

We have assumed weekly catch ups between GT's Project Lead (Michael Berrington) and DECC's project lead. This will be important for ensuring that delivery and content is on track and seeking steering and feedback where required.

Workshops

Two workshops will be held: one following the literature review and test document development, and one following the development of the draft outputs. As well as the weekly catch ups between project leads, these workshops will be important for agreeing proposed structure and content of the outputs as well as for discussing methodology, management and reporting. We propose that these workshops are attended by the Project Lead (Michael Berrington), Project Manager (Jennifer Gilbert) and a representative from AECOM.

Guidance Documents

Our approach to writing the guidance documents is included within the responses to Specific Questions.

Management and Delivery

Program Plan

Below is our project timeline. In order to deliver the four work packages in the short timeline required, it will be necessary to run these concurrently. This timeline will also need to accord with the delivery plans of the other consultants drafting respective elements of the guidance to ensure a joined up approach.

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Organogram

The following shows the organisational structure of our team. The Project Director Michael Berrington will be overall responsible for drafting the guidance documents and will be your main point of contact.

Energy & Environment

Quality Assurance



Project Director / Lead



Project Manager



Analytics & Modelling



Project Support



Research Support



Cold Review



Technical Support AECOM



Quality Assurance

As well ensuring that suitably qualified, competent, and reliable personnel are allocated to the assignment, a single individual (Mike Read, Head of E&E) is identified as having the final responsibility for the overall quality of service and for signing off outputs. Mike will ensure that quality control and project management processes apply throughout this assignment including consideration of ethical / risk issues. We will implement assignment plans, assignment progress reviews, evidence-based recording of outputs, internal review of proposed outputs, and sign off on completed work streams and assignments.

Grant Thornton is accredited with ISO9001, which confirms our quality management systems standards are designed to ensure that we meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to our products and services. For more details of our Quality Assurance procedures, please see our Transparency Report 2015 (<http://www.grantthornton.co.uk/en/about-us/transparency-report/>). We seek to improve efficiency and effectiveness in all our work and amend our approach through feedback. Our quality assurance process is not just inward facing but includes feedback externally from our clients, and supporting advisers to ensure that we can adapt our style and approach to suit DECC's needs.

Cost

The following table, along with Annex A, details our tender price.

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