OPDC
OLD OAK AND PARK ROYAL DEVELOPMENT CORPORATION

CEO DECISION – CD 194

Title: Old Oak Park Royal Energy Network (OPEN) – Commercialisation Budget

Executive summary

OPDC have secured £36m from the Department for Energy Security and Net Zero's (DESNZ) Green Heat Network Fund (GHNF) for the development of an Energy Network that takes waste heat from Data Centres within Park Royal.

£1m of that funding has been allocated for expenditure for the next phase of the project, the commercialisation phase. The GLA are providing an additional £1.3m for this project.

This expenditure was approved by the Development, Investment and Sustainability Committee (DISCo) on 22/02/2023 subject to OPDC successfully meeting the GHNF criteria. The GHNF application was successful on (add date).

OPDC have engaged AECOM as the consultant lead, with support from Commercial and Financial consultants and legal advice (Burgess Salmon) through TfL Legal, to develop the Heat Network through the commercialisation phase which will involve the following:

- development of Special Purpose Vehicle (SPV) Options
- preparation of SPV Terms and Conditions
- preparation of Procurement Strategy and Procurement Documentation
- Design Development to RIBA Stage 2
- negotiation of heads of terms with Data Centres & Suppliers.

Decision

That the Chief Executive approves:

1. the expenditure of £2.3m funded by the Department for Energy Security and Net Zero (DESNZ) (£1m) and by the GLA (£1.3m).
2. the £2.3m expenditure to be allocated as outlined below:

- Project Management, Technical, Commercial and Financial Consultants: £1,137,000
- Legal: £365,000

- Internal OPDC Costs: £354,000
- Surveys and 3rd Party costs: £255,000
- PM Contingency: £113,700
- Legal Contingency: £36,500
- OPDC Contingency: £35,400
- Survey and 3rd Party Contingency: £25,500

Chief Executive Officer

I do not have any disclosable interest in the proposed Decision. It is consistent with OPDC's priorities and has my approval.

Signature:  **Date:** 11 Aug 2023

PART 1: NON-CONFIDENTIAL FACTS AND ADVICE

1. Background and context

1.1 In 2018, the Mayor of London published the London Environment Strategy and Zero Carbon London: A 1.5°C Compatible Plan, which presented a range of energy system scenarios for London consistent with a 2050 Net Zero target. In 2020 the mayor committed to bring forward London's net zero target from 2050 to 2030. A detailed plan to achieve this goal was published in 2022; it highlights four potential pathways, within which District Heating (DH) was forecast to be a considerable contributor to decarbonisation, supplying almost 6TWh or 15-25% of London's heat demand.

1.2 OPDC has commissioned work as part of the Local Area Energy Plan, Local Plan Strategy, Old Oak North Masterplan and Environment Strategy to look at the most effective and efficient ways to achieve the net zero carbon target. The target will be very challenging to achieve in the OPDC area because of the mix of development, the density and height of buildings and the constraints on space.

1.3 In the last two years, OPDC has received planning applications for five new Data Centres. Data centres are very significant users of power but also generate high levels of waste heat. The juxtaposition of very large waste heat sources from data centres close to customers with large heating, cooling and hot water demands, provides an opportunity to explore whether a heat network that connects the two together is technically feasible and financially viable.

1.4 OPDC has developed an Outline Business Case (OBC) which supports the delivery of a district heat network, supplied by waste heat from data centres. This

OBC has been approved by OPDC's Delivery, Investment and Sustainability Committee (DISCo). It demonstrates that a heat network using waste heat from data centres is viable, and would deliver considerable benefits, including overall savings in the cost to meet zero carbon planning requirements, lower costs of heat and hot water to consumers, and significant reductions in carbon emissions against alternative approaches.

1.5 The findings in the OBC have been used to support a submission to the Department for Energy Security and Net Zero (DESNZ) for funding from the Green Heat Network Fund (GHNF).

1.6 The GHNF funding is structured to allow a period of 'commercialisation' to enable projects to undergo further analysis to ensure the technical and commercial proposals are deliverable`.

1.7 OPDC have been successful in their application for funding from the GHNF on 5 July 2023.

2. The proposal and how it will be delivered

2.1 The expenditure will pay for the for the next stage of the OPEN project, Commercialisation. Commercialisation will be delivered by a multi-disciplinary team of consultants, led by AECOM. This is the same team who developed the approved OBC and funding application for the GHNF.

3. The £2.3m expenditure to be allocated as outlined below:

3.1 Project Management, Technical, Commercial and Financial Consultants: £1,137,000

Legal: £365,000

Internal OPDC Costs: £354,000

Surveys and 3rd Party costs: £255,000

PM Contingency: £113,700

Legal Contingency: £36,500

OPDC Contingency: £35,400

Survey and 3rd Party Contingency: £25,500

Optimising the Programme

3.2 This next phase of the project requires significant engineering and commercial effort, delivery at pace and close collaboration with internal and external stakeholders. To meet this requirement, we have assembled our multi-disciplinary team (HermeticaBlack (HB) and Asteros), to secure approvals, negotiate connections, develop designs and get the project ready to go out to market.

3.3 These teams have worked together to deliver heat networks at this scale previously and will draw from the expert teams (e.g. Rail, Civil, Data Centre) involved on OPDC. Retaining the existing core team currently working on OPDC,

will ensure that the team can brief and deploy specialists, to effectively and efficiently develop solutions that move this project forwards towards delivery, at the pace required by the challenging programme.

3.4 Effective programme management is critical to delivering on the required outcomes of the first phase of commercialisation. This starts with the programme, the methodology has been developed to ensure the best chance of achieving the GHNF draw down-dates, data centre designs, stakeholder engagement and alignment with the greater OPDC development needs. To do this the project team will:

- secure timely third-party approvals – by having clear understanding of the third-party processes and key contacts the team will target and sufficiently develop areas of the design to satisfy approvals, e.g. Rail Crossings, planning and Data Centre interfaces.
- resolve key commercial agreements early - crucial work is required upfront to secure energy centres and key customers, this requires levering existing relationships and making timely decisions on information received.
- secure early input from potential Joint Venture (JV) Partners - procuring and negotiating the JV Partner will take time, and we plan for this to be undertaken alongside project development, to minimise impact on end delivery. Early input will also ensure the technical solutions are adoptable and reduce abortive works.
- develop realistic commercial propositions – the team will ensure that reasonable propositions are put forward which protect OPDC and are acceptable to counterparties. This will reduce the time and cost involved in finalising the Heads of Terms and eventual contracts.

Commercial Strategy and Approach

3.5 The Techno Economic Model (TEM), is the ‘engine’ for project development. It takes all the real-world variables (e.g. heat supply, demand, capital cost, energy) and projections (e.g. energy cost, carbon, phasing) to provide metrics that can be used to test the impact of varying scenarios.

3.6 The outputs of the TEM and Financial Model will be used to measure the viability the project. We will work closely to ensure that both the TEM and Financial Model align and are reflective of the latest design and commercial discussions, reflecting changes and enabling it to inform decision making. For example, this may include;

- testing impact of a change in route or impact of using one piece of land over another;
- deciding whether to connect to a new site that has been proposed in the locality;
- updating and testing the impact of grid reinforcement, or restricted electricity supply;
- reviewing the energy balance to assess spare heat capacity

3.7 When developing the procurement documentation, the Financial Model will support the definition of criteria for measuring value for money, of potential partners, and we will support the assessment of commercial proposals from candidates. It will also underpin the assessment of KPIs at the end of commercialisation to confirm whether the partner should progress the project to Financial Close and into construction.

Partner Procurement

3.8 The team will produce documentation that outlines a clear tender process that is split into 2 stages - a Pre-Qualification Questionnaire (PQQ), and a detailed tender evaluation. This 2-stage approach including a PQQ is essential for a project of this scale and complexity, ensuring that the detailed negotiation is undertaken with viable partners only. Prior to PQQ we would develop a clear funding agreement and Shareholders Agreement (or equivalent) that outlines all the Reserve Matters critical for OPDC/GLA in the development and delivery of the network. Alongside this, a detailed information pack that outlines all the current project details from a commercial, technical, practical, and financial perspective would be collated and shared.

3.9 The PQQ process would be evaluated and scored prior to the full procurement to slim the bidders down to 2-3 parties. The PQQ would be evaluated on key pass/fail criteria around the contracts, project objectives and OPDC/GLA reserve matters. Additionally, a scoring mechanism would be created to ensure objective analysis of other beneficial factors around; delivery and development experience, practical abilities to deliver, cost of funding, cost and standards of heat supply, approach to expansion and approach to social value.

3.10 Once the bidders are down to 2-3 preferred parties, detailed responses to the tender would be required from the bidders along with detailed (and scored / evaluated) negotiation around the funding agreement and Shareholder agreement terms.

4. Objectives and expected outcomes

4.1 The principal objectives for the Commercialisation phase of the project are to:

Scope Area	
STAGE ONE	
Delivery and commercial	• Exploration of delivery options and the role of OPDC / GLA • Market engagement • Development of funding structure and steps for OPDC to take prior to procurement of a partner • Supporting OPDC on securing approvals and ensuring stakeholder are integrated • Terms for heat supply and heat to customers

Technical / commercial	• Data Centre heat supply design and route • Design and location of energy centres • Design development for the network in anticipation of one or two stage tender by the delivery SPV • Preparation of drawings for planning applications and engagement with the planning authority • Third party approvals including Network Rail, HS2 and other landowners
Financial	• Ongoing financial modelling to maintain up to date assessment of position • Testing different funding sources
Procurement preparation	• Development of procurement strategy – working with OPDC's legal advisors and TfL legal • Supporting preparation of draft contractual documents • Preparation of procurement documentation including briefing documents and evaluation criteria
STAGE TWO	
Procurement process	• Support OPDC to facilitate the procurement process and associated engagement sessions • Support responding to technical and commercial clarifications • Support responding to technical and commercial evaluation • Support OPDC in submitting reports for governance approvals
Full Business Case	• Preparation of the Full Business Case to support approvals from OPDC and GLA governance to commit resources and investment into the JV • This will include specific focus on the Techno-Economic assessment, financial case and commercial case. Support will also be required on the management case but this will have greater input from OPDC

5. Strategic fit

5.1 As one of the Mayor's two development corporations, OPDC is expected to be an exemplar of sustainable development and demonstrate how the Mayor's net zero carbon target can be achieved in opportunity areas. Exploring the possibility of harnessing waste heat from data centres for use across the development via a heat network is one of OPDC's key strategies for achieving the target.

5.2 Delivering a heat network will support the delivery of sustainable development across the development at Old Oak West (OOW), which is being led by OPDC to unlock and maximise the economic, housing, and regeneration benefits from the major public investment in HS2 in a way that supports a transition to net-zero carbon economy.

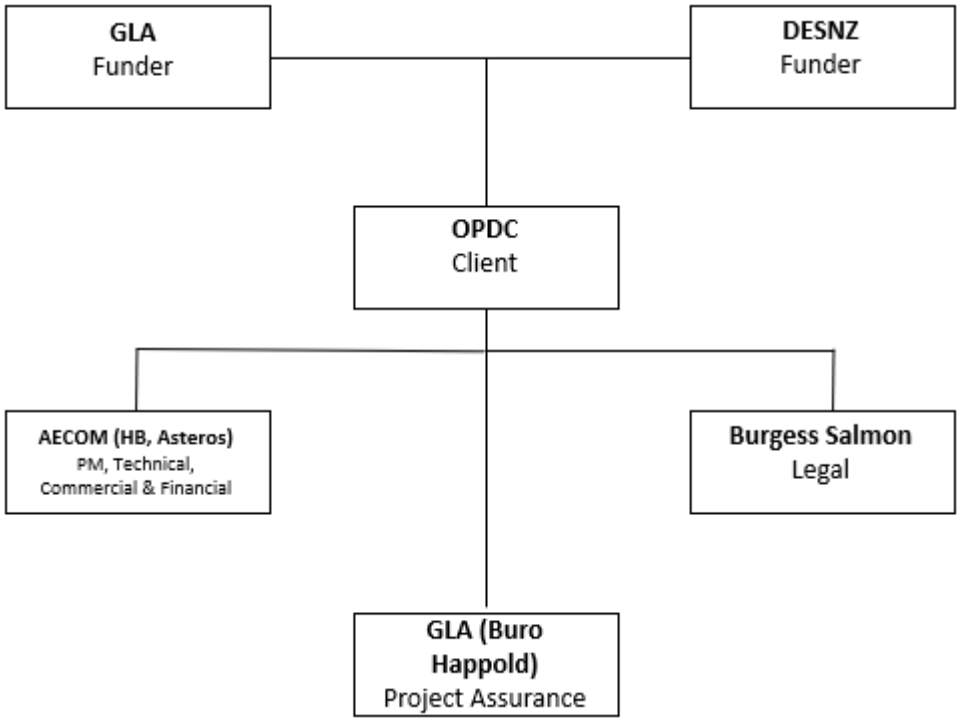
5.3 By utilising large-scale, public sector brownfield land assets at Old Oak, OOW offers the possibility to construct a new London district, on a scale comparable with King's Cross and Canary Wharf. It will be a mixed-use residential and economic hub with c.9,100 new homes, 2.5 million sq. ft of commercial space generating c.35,000 jobs. OOW will also catalyse wider regeneration within the Old Oak and Park Royal areas, spurring private sector investment to deliver the Opportunity Area's overall long-term capacity of 25,500 additional new homes, and 56,500 new jobs.

5.4 In addition, OOW will support major new economic development and inward investment that can address local deprivation and poverty. In light of recent increases in the cost of living to a large extent driven by increases in energy costs, there is an impetus to invest in a low carbon energy solution that can supply these new homes and provide a reliable, low-cost energy source. The heat network will be a major contributor to solving these challenges locally.

5.5 The heat network will provide heat to the entire area of OOW, as well as surrounding areas, helping to ensure the development meets its zero carbon targets. The benefits of plugging into the system include reduction in capital costs to meet OPDC and London Plan zero carbon targets; a reduction in the demand for and therefore costs to reinforce the electrical distribution network, significant reductions in the area required for plant in buildings, freeing up of space on roofs for other uses including amenity space which is in short supply, water attenuation which is critical and biodiversity. Whilst the heat network is not dependent on the delivery of OOW, provision to OOW will benefit both the heat network project and the housing-led regeneration scheme.

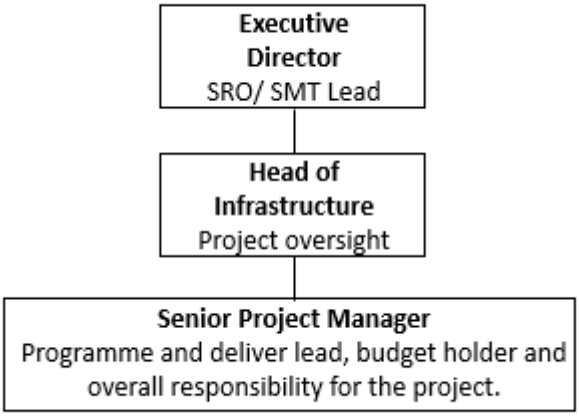
Project governance and assurance

The chart below shows the organisational contractual structure during the commercialisation stage.



- AECOM will provide monthly reports to OPDC outlining progress against programme and expenditure against agreed contract value.
- once in contract, AECOM will act as project managers, managing the sub-consultants HB and Asteros to ensure all workstreams are aligned to programme.
- the team will report to DESNZ on expenditure of the GHNF as defined in the GHNF Memorandum of Understanding. A Memo detailing OPDC's reporting requirements is appended to this CEO Decision.
- OPDC are in discussions with the GLA and the Climate Project Delivery Unit to provide target project assurance throughout the Commercialisation phase.
- the team will report to GLA through the Monthly Steering Group meetings. OPDC will claim the GLA element of the funding once the GHNF funds have been spent.

5.6 The chart below shows how the OPDC is organised to deliver the works.



Risks and issues

5.7 The risk register will be reviewed at monthly risk meetings with the consultant team and OPDC risk managers with mitigations implemented, costed, and added to the cost plan and programme. This will be coordinated by the Project Manager and Technical leads.

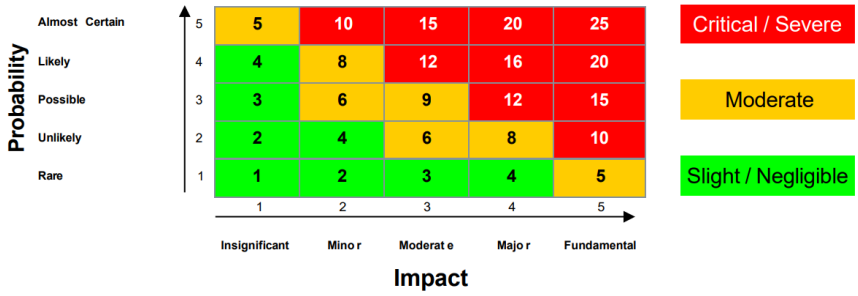
5.8 The following risks have been reviewed with controls added to reduce the risks, outlined in the table below:

Risk description	Inherent Score	Mitigations	Residual Score
1. Unable to secure a suitable agreement with the new data centres for heat offtake	Likelihood: [3] Impact: [5] Total: [15]	Build on initial engagement with data centres to agree terms. Set out benefits and cost savings for data centres. Proceeding on a 'no detriment' basis	Likelihood: [2] Impact: [4] Total: [8]
2. The Internal Rate of Return following changes to the scheme during commercialisation is insufficient to attract a private sector funding in the project.	Likelihood: [3] Impact: [3] Total: [9]	Current IRR is within expected range and includes optimism bias, risk and contingency. Early engagement with investors during commercialisation to confirm requirements and risk appetite.	Likelihood: [2] Impact: [2] Total: [4]
3. Energy centre sites are not	Likelihood: [3] Impact: [3] Total: [9]	Development of land assembly strategy as part of	Likelihood: [2] Impact: [2] Total: [4]

secured, resulting in inability to design, locate and deliver necessary infrastructure.		OOW (use of Powers if required). Continued engagement with landowners including Network Rail and HS2 for site access. Utilise support of planning colleagues.	
4. Risk that capital grant cannot be committed ahead of March 2025 deadline	Likelihood: [3] Impact: [4] Total: [12]	Development of a realistic programme and ongoing monitoring. Early flags and lead-in time for OPDC / GLA decisions. Explore use of frameworks and efficient procurement approaches. Review opportunities for early spend on plant and equipment, land purchase and pipework	Likelihood: [2] Impact: [3] Total: [6]
5. Unable to coordinate with HS2 and other stakeholders (UKPN, NWR, TFL) to secure a route for pipework. Significant congestion in the highways restricts network routing.	Likelihood: [4] Impact: [5] Total: [20]	Engagement with HS2, including escalation where required. Share designs and partnering with HS2 contractors. Procure survey early, explore alternative dig methods to open trench such as thrust bore or HDD	Likelihood: [3] Impact: [4] Total: [12]
6. Electrical reinforcement delays mean	Likelihood: [4] Impact: [4] Total: [16]	Develop multiple options for grid connection points with UKPN and	Likelihood: [3] Impact: [3] Total: [9]

Energy Centres receive power later than forecast. Knock on impacts to the delivery and phasing		SSE. Test impacts of ramping or delay in TEM. Keep GHNF up to date on programme and spend impact.	
7. Data centres lock in designs that are detrimental to the heat network such as offtake positions and pipe sizes.	Likelihood: [4] Impact: [4] Total: [16]	Continue to engage with Data Centres (DC) to inform them of the impact of their decisions. Ensure future DC's consider heat offtake requirements earlier.	Likelihood: [3] Impact: [3] Total: [9]
8. Lengthy negotiation periods with JV partner delay meaningful progress on delivery.	Likelihood: [3] Impact: [5] Total: [15]	Through 2 rounds of Market testing, openly discuss and gather feedback on the can and cannot of the potential partners and supply chains to reduce likelihood of sticky issues	Likelihood: [2] Impact: [4] Total: [8]

5.9 All risks in the above table have been reviewed in line with OPDC's Risk Management Framework. The below table was taken from appendix C of that framework.



5.10 Risk 5 remains a red risk following mitigation because at the moment the project is relying on the records of our local stakeholders. In the case of HS2 this is proving particularly difficult we. We are working with them to enter into a framework agreement which should allow cross organisational collaboration to be smoother. This coupled with the surveys of the road network that OPDC plan to undertake should de-risk this significantly, but until they surveyor has been appointed, and the framework agreement is in place, it will remain a significant risk to the project.

6. Equality comments

6.1 Under Section 149 of the Equality Act 2010, as a public authority, OPDC must have 'due regard' to the need to eliminate unlawful discrimination, harassment and victimisation as well as to the need to advance equality of opportunity and foster good relations between people who share a protected characteristic and those who do not.12

6.2 The OPEN project aims to contribute to the OPDC's Equity, Diversity and Inclusion Strategy and Action plan in a number of ways.

6.3 The first will be in partnership with colleagues at the forge, we will right into procurements that the SPV have clear objectives around employment and skills that ensure diverse inclusion, representation and participation in this project from our residents.

6.4 It will also contribute to the objective which aims to create a welcoming, accessible and inclusive place by providing low carbon heating for existing and new business and residents within the OPDC area.

6.5 One core aim of OPDC is the identification and implementation of innovative strategies to support small and diverse-owned businesses. This was seen most recently following board approval of OPDC's Loans for Small Businesses, which will provide £350,000 funding to support creative and manufacturing businesses based in OPDC's Park Royal development area.

6.6 OPDC is keen on expanding this support to cover workstreams on its larger projects and attract new entrants to government markets. As the cost of procuring GPR and topographical surveys falls below the Governments £213k PPN 10/21 threshold, OPDC wishes to put forward a reserve contract available for SME bidders. The proposed use of RenKap's platform will provide OPDC with direct access to SME's as identified through it's pool of SME suppliers.

7. Other considerations

Consultations and impact assessments

7.1 The project is still in the feasibility stage, full consultation and impact assessments will be undertaken as and when the project is in full development.

Communications and engagement

The project is still in the feasibility stage. Should the project be deemed to be viable, any and all communication and engagement with the local community will

[1] The protected characteristics and groups are: age, disability, gender reassignment, pregnancy and maternity, race, gender, religion or belief, sexual orientation and marriage/ civil partnership status. Fulfilling this duty involves having due regard to: the need to remove or minimise any disadvantage suffered by those who share a protected characteristic or one that is connected to that characteristic; taking steps to meet the different needs of such people; and encouraging them to participate in public life or in any other activity where their participation is disproportionately low. Compliance with the Equality Act may involve treating people with a protected characteristic more favourably than those without the characteristic. The duty must be exercised with an open mind and at the time a Decision is taken in the exercise of the OPDC's functions.

be undertaken in coordination with the OPDC's Communication and Engagement Team.

Sustainability

7.2 For this project all best practice sustainability approaches will be taken during the design stages. The aim of this project is to provide a low carbon energy network which directly responds to the Mayor's Sustainability objectives.

Data protection

7.3 All events and activities will adhere to the GDPR regulation

8. Conflicts of interest

8.1 No one involved in the preparation or clearance of this form, or its substantive proposal, has any conflict of interest.

9. Financial comments

9.1 The Authority has been awarded £1m funding from DESNZ's Green Heat Network Fund (GHNF) and the GLA is providing an additional £1.3m for this project. This gives a total £2.3m funding allocated for expenditure for the next phase of the project.

9.2 This expenditure was approved by the Development, Investment and Sustainability Committee (DISCo) on 22/02/2023. There are no new financial implications beyond what has already been approved.

9.3 The budget will be monitored on a monthly basis using the below budget tracker.

Workstreams Breakdown	Original Baseline Budget	Budget Changes	Budget Transfers	Current Baseline Budget	Contract Award	Anticipated Final Costs	Variance	Cost to Date (to be populated)
OBC Commercialisation (2,322,100)								
Aecom (PM & Technical, Commercial & Financial)	1,137,000			1,137,000	791,408	791,408	(345,592)	0
Burgess Salmon (Legal)	365,000			365,000		0	(365,000)	0
OPDC	354,000			354,000		0	(354,000)	0
Other: 3rd Party Costs	255,000			255,000		0	(255,000)	0
Aecom Contingency (PM & Technical, Commercial & Finar	113,700			113,700		0	(113,700)	0
Burgess Salmon Contigency (Legal)	36,500			36,500		0	(36,500)	0
OPDC Contigency	35,400			35,400		0	(35,400)	0
Other Contigency: (3rd Party)	25,500			25,500		0	(25,500)	0
Report Totals	**2,322,100**	**0**	**0**	**2,322,100**	**791,408**	**791,408**	**(1,530,692)**	**0**

10. Legal comments

10.1 The report above indicates that the decision requested of the CEO falls within the OPDC's object of securing the regeneration of the Old Oak and Park Royal area and its powers to do anything it considers appropriate for the purpose of its objects or purposes incidental to those purposes, as set out in the Localism Act 2011.

10.2 Any services the subject of the expenditure must be procured in accordance with the OPDC's Contracts and Funding Code .

10.3 Officers must ensure that appropriate contractual documentation be executed by the service provider and OPDC, before the commencement of the services.

10.4 Officers are reminded to ensure that the OPDC comply with the funding conditions attached to DESNZ's GNHF funding. Furthermore, any grant funding to be distributed by the OPDC in furtherance of this project must be made subject to the completion by the OPDC and the recipient of the OPDC's standard funding agreement.

11. Summary timeline

Activity	Date
Development of procurement documents and terms & conditions	06/10/23
Agree Heads of Terms with Data Centres	19/10/23
Agree Heads of Terms with Customers	19/10/23
Complete Survey Work	05/10/23
Launch Procurement	21/11/23
Complete Technical Design work	14/12/23
Tender Returns	21/02/24
Tender Evaluation and Negotiation	21/05/24
Award	01/06/24

12. Appendices

12.1 Appendix A: GHNF MoU Key Notes_Q2 2023

13. Other supporting papers

13.1 Application to Green Heat Network Fund

13.2 Heat Network Project Update

PUBLIC ACCESS TO INFORMATION

Information in this Form (Part 1) is subject to the Freedom of Information Act 2000 (FoIA). OPDC aims to publish the Form within three working day of approval.

If immediate publication risks compromising the implementation of the Decision (for example, impacting a procurement process), it can be deferred until a specific date (when it will be published). Deferral periods are kept to the shortest length strictly necessary.

Part 1 – Deferral

Publication of this Part 1 is to be deferred: **No**

Part 2 – Confidential information

Only the facts or advice that would be exempt from disclosure under FoIA should be included in or attached to any separate Part 2 Form, together with the rationale for withholding the information at this time.

There is a separate and confidential Part 2 Form: **No**

DECLARATIONS

Drafting officer: Liam Caulfield has drafted this Form in accordance with OPDC procedures, including for handling conflicts of interests, and confirm that: ☑

Advice: The Finance and Legal teams have commented on the proposal. ☑

CONFIRMATIONS

Section 106 funding: This use of S106 to fund the expenditure proposal was approved via a Section 106 spend proposal form on N/A.

SMT review: This Decision was circulated to the **Senior Management Team** for review on Thursday 27th July 2023.

Chief Finance Officer

Financial and legal implications have been appropriately considered in the preparation of this Form.

Signature:  **Date:** 10 August 2023

Director: Gareth Blacker, Executive Director of Delivery

I do not have any disclosable interest in the proposed Decision. It is consistent with OPDC's priorities and can be referred to the CEO for final approval.

Signature:  **Date:** 10 August 2023