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Old Oak North Decentralised Energy Infrastructure

Summary of ESCo Market Engagement Exercise

OPDC

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1. Energy Service Companies- Market Engagement

To inform the Old Oak & Park Royal Development Corporation's (OPDC's) commercialisation strategy for the provision of strategic energy and district heating infrastructure in Old Oak North, OPDC and AECOM undertook a market engagement exercise with six Energy Services Companies (ESCo). The purpose of this early market engagement exercise was to:

1. Set out the scale of development and opportunity in Old Oak and Park Royal and the objectives of the decentralised energy strategy for Old Oak North;
2. Engage early and widely with the supply side, ensuring openness of access to OPDC officers and information;
3. Establish good communication channels with ESCo's;
4. Gain greater focus and knowledge about the market which will help to further define and develop our technical and commercial strategy; and
5. Gauge the level of interest in the ESCo market to design, build, fund, own and operate the energy infrastructure for Old Oak North.

Six ESCo's who had previously expressed interest in the scheme and were known to be interested in operating in the London area were selected for this market engagement exercise and a meeting was held with each company individually. The six companies were:

- Metropolitan
  - A subsidiary company owned by Brookfield Asset Management,
  - Operator (under a JV arrangement with Argent) of the Kings Cross District Energy Scheme,
- Vattenfall Heat
  - A subsidiary company owned by the Swedish Government,
  - Operator of significant district energy schemes across Europe, including a well-established large DE project in Amsterdam that the OPDC team visited.
- Scottish & Southern Energy (SSE)
  - One of the top 6 UK Energy Companies
  - Operator of various district heating schemes across the UK
- ENGIE
  - UK & Ireland subsidiary of the Engie Group, a global utility company with some 150,000 employees,
  - Operator (under a 40-year concession agreement) of the QE2 Olympic Park and Stratford City DE Scheme.
- EOn
  - One of the top 6 UK Energy Companies,
  - Operator of the Citigen, London district heating scheme
- Veolia
  - A global utility and facilities company with some 179,000 employees
  - Operator of the SELCHP, London energy recovery district energy scheme.

The key points emerging from the market engagement meetings can be summarised as follows:

Interest and Experience

- All ESCo's expressed a keen interest in participating in the scheme.
- All ESCo's have proven experience in the design, build, fund, own and operate delivery models.
- The six ESCo's engaged are all significant companies (see above experience and background) and in all cases subsidiaries of extremely large global energy and utility companies. They have the capabilities, track record and recent project experience to provide energy services across all procurement lots (heat generation, heat distribution and energy services).

Technical Considerations

- Developing a delivery model and operational agreement that facilitates and promotes ongoing carbon savings performance is a key development point. It is recognised that the fuel basket is highly likely to change over the period of the development, ensuring the delivery model promotes continuous improvements in carbon performance and does not constrain the introduction of new future technologies was a key discussion point.

Design and Construction of the Decentralised Network and Energy Centre

- New assets are normally designed, constructed and adopted through a process where the ESCo provides designs, procurement and construction. The ESCo works collaboratively with sub-contractors to assist them in ensuring designs are 'Value Engineered', 'Fit for Purpose', aesthetically and ergonomically designed using the ESCo standard specifications and material lists, to meet where possible the needs and expectations of the developer and to ensure access and legal risks are minimised.
- ESCos will typically work with a preferred subcontractor who has an understanding of the ESCo requirements and specifications and can therefore design and deliver a network the ESCo can adopt and own. This helps the ESCo leverage experience from across their business, including the opportunity for innovative solutions.
- It is important to the ESCo that the design of the new network facilitates access for maintenance in the adopted highway and provides easy access on third party land. The construction programme needs to be managed to ensure the new assets are not compromised by other construction works.

Commercial Considerations

- In each meeting it was explained that OPDC have bid for capital grant funding through the Housing Infrastructure Fund (HIF) to invest ahead of need in the strategic infrastructure required to bring forward a site-wide energy strategy. All ESCO's indicated that early investment by OPDC was necessary and de-risked private sector investment.
- The ESCos confirmed they would consider all delivery model options e.g. design, build, adopt and operate and the procurement lot approach under consideration. Details on the proposals for the recovery and 'clawback' of early investment by OPDC have been discussed. A reinforcement levy as part of the connection fee is a viable model, based on discussions.
- ESCos typically proposed to release developer payments either as phased instalments or instalments as metered connections are confirmed. The actual level of payments and time of release is subject to negotiation on individual projects. Typically, this may mean much of the Energy Centre and/or pipework primary network infrastructure has to be funded and installed well before developer connection payments are released. It is expected the HIF will help pay the early costs in providing the new energy infrastructure and be re-funded by a combination of connection fees, reinforcement charges and developer payments from the ESCo as the metered connections are confirmed over time.

- OPDC wish to recover some or all of the early investment in the district heating infrastructure. Initial funding is planned from the HIF grant. Discussions with the ESCos have confirmed that recycling of early investment is possible. To consider the level of recovery, OPDC have approached this point from two angles:
  - Feedback and discussion with the ESCo as part of this market engagement exercise; and
  - Development of a counter factual case on the connection fees that could be levied by comparison to a standalone on-plot technical heating solution.
- The ESCo discussions provided feedback whereby based on experience of existing schemes and a level of candidness, early investment could be recovered up to a level of 80% (range 40%-80%).
- The counterfactual case shows that due to the residential density and sheer size of the Old Oak North scheme it is possible to achieve a recovery of 100% of the early HIF investment. The alternative options a developer has to meet draft Local Plan and London Plan policy, if they do not connect to the heat network, are expected to be costlier to the developer than connection to the network[1].
- At this stage the level of estimated funding recovery is set at a level of 60% in the business case. This prudent approach has been taken at this early stage in the ESCo procurement programme.
- Understanding what OPDC can actually offer the ESCo marketplace needs further and detailed consideration. This needs to address what key development, economic, technical, policy and long-term factors can be enshrined into the ESCo agreement to provide sufficient robustness in the opportunity to encourage the best value offers from the market. An initial set of unconfirmed factors that could be relied upon are based on the following initiatives/actions:
  - OPDC role as Planning Authority, details to be developed;
  - Local and development policy, obligating plot to connect providing certain conditions are met, details to be developed;
  - Restricted access to new infrastructure (roads, bridges) to others preventing duplicate pipework from being installed by others;
  - Locally installed network providing cost benefits to the ESCo when seeking to offer connections to plots;
  - Bespoke development agreements with other developers that obligate connection to the strategic heating infrastructure, details to be developed; and
  - An economic offer to all plots that compels connection to the strategic infrastructure, details to be developed.

<u>Other</u>

Typical information required by the ESCos for bidding purposes is as follows:

I. Commercial property schedule;
II. Residential schedule;
III. Start date/finish date/ connection dates;
IV. Phase breakdown;
V. Loadings - demand and consumption profiles;
VI. Land ownership boundaries;
VII. Restrictions on routing/location of infrastructure;
VIII. Employers technical requirements, and

[1] See Old Oak Decentralised Energy Stage 4 report, July 2018.

IX. Energy and renewables strategy.

Feedback from the initial engagement with the ESCO's was positive, and all six companies expressed an interest in participating in the procurement process for this opportunity.