

Bristol City Leap:

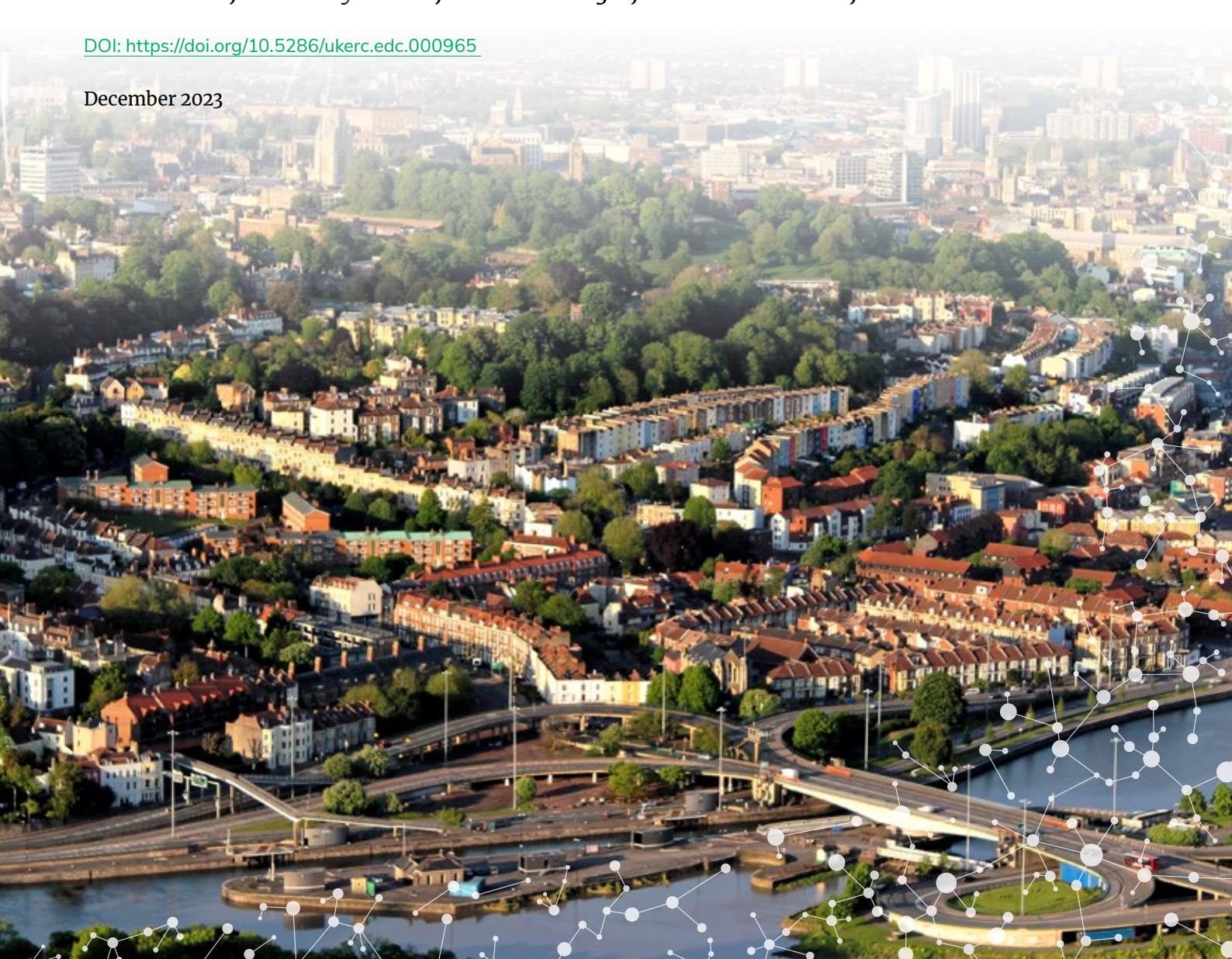
A Novel Finance and Public Procurement Model for Delivering Net Zero

Policy brief

Colin Nolden, Tedd Moya Mose, Katherine Sugar, Akshath Kommidi, Sean Fox

DOI: <https://doi.org/10.5286/ukerc.edc.000965>

December 2023



Motivation and aims of Bristol City Leap

This policy brief provides a short case study of Bristol City Leap as an example to showcase a novel finance and public procurement model for delivering city-wide net zero across a local authority. Alongside Project LEO in Oxfordshire, and CommuniPower in the south-east of England, this is one of three case studies of the research project “Finance and Public Procurement for Net Zero.”

In November 2018, Bristol City Council (BCC) declared a climate emergency and set an ambitious target of making the city carbon neutral by 2030 and its own estates by 2025. Despite its large Bristol Energy Service team, however, the Council lacked the capacity, skills, and financial resources to deliver this city-wide net zero target. This is symptomatic of all local authorities in England with evidence from 2020 provided by the Green Alliance suggesting that they can fund maybe 25-35% of their net zero pledges using their discretionary spending budgets, which does not take into account inflation, skills shortage, and supply chain constraints¹.

Even before BCC declared a climate emergency, the Council published the City Leap Prospectus in recognition of this deficit². The resulting soft-market testing encouraged the Council to launch a tender in 2019 to procure a strategic partner “to assist the Council in achieving its net zero target by 2030” and bring “private sector expertise and funding to the table”³. Specifically, it aimed to attract £1 billion in private capital over the course of its 20-year contract.

Following a 4-year procurement process, Ameresco Ltd (an international energy service company and renewable energy asset developer, owner, and operator) was awarded the contract to deliver Bristol City Leap and lead the public-private joint venture company (JVCo) under the same name. The JVCo is a 50-50 owned entity between Ameresco and the Council to originate and develop

projects. In January 2023, Ameresco, together with Vattenfall UK, a Swedish state-owned energy company specialising in low and zero-carbon heat networks, signed the 20-year concession contract.

On paper, these energy service aspects bear similarities to associated contracts supported through the Greater London Authority’s Refit programme and the Carbon and Energy Fund.^{4,5} Contracts procured through these frameworks typically involve a capital outlay of £1m-£5m and up to £30m and last on average 5 to 10 and up to 15 years. This contract includes the right of first refusal and the following contractually binding Key Performance Indicators (KPIs):

1. Make the Council’s own operations carbon neutral by 2025 (covering its direct energy ‘Scope 1’ and transport emissions ‘Scope 2’);
2. Retrofit the Council’s social housing by 2030, achieving a minimum Energy Performance Certificate band C;
3. Save c. 140,000 tonnes of CO₂;
4. Deploy c. 182 MW of zero carbon energy generation;
5. Deliver c. £61m of social value, including c. £50m of contracts to be delivered by local suppliers.³

In Bristol City Leap’s business plan, however, Ameresco estimates that the delivery of these



KPIs requires investment of £424 million by 2030, half of which in heat networks. It is anticipated that associated projects will follow a conventional design, build, operate pattern although pay-for-performance elements can be included if both sides agree to it. It builds on around £100m of investment by BCC in low-carbon energy infrastructure between 2017 and 2022 while increasing the investment volume around eight-fold in the period 2023-2028. Although this is still far short of the £9bn BCC's Council Strategy suggests the decarbonization of Bristol is expected to cost, it nevertheless marks a significant increase.

As part of this contract, ownership of Bristol Heat Networks Ltd (BHNL), previously held by Bristol Holding Ltd, a council-owned company, and valued at around £50m, was transferred to Vattenfall Heat UK. Bristol Energy Service staff were transferred from the Council to Ameresco with all heat networks staff subsequently seconded to Vattenfall to deliver existing projects and originate new ones. As part of the Bristol City Leap partnership, Vattenfall have committed to financing, building, expanding, maintaining, and operating heat networks across Bristol City.

Funding will be sourced through the Council's (very limited) capital budget (although the Council has made no upfront commitments), Ameresco's own equity, Ameresco's equity partners, Vattenfall's utilities and bonds as a state-owned energy company (for heat network development), crowd funding (up to 10% of capital investment requirements of non-heat network projects), and debt finance. Revenue from associated projects will be recovered by selling electricity, heat, and energy savings. In case Ameresco provides the investment, they will own the assets. If the council provides the funding, they will own the assets, as is the case with existing renewable energy assets of which the Council retains ownership.

To date, the procurement process (including transition phase) has cost just over £9.5 million pounds³. This is due to the due diligence required to overcome complexity, risks, and transaction costs through a concessionary public-private JVCo model. Although procuring such contracts and monitoring their delivery is challenging, their ability to attract private finance is significant. The Bristol City Leap partnership is therefore a useful first-of-a-kind example of a public-private partnerships for delivering net zero at city-scale.

Key findings

Aggregating the investment requirements of decarbonising council-owned assets enabled the procurement of Bristol City Leap using the public-private JVCo model which in turn benefits from increasing visibility in capital markets. Its total project value, duration, and contractual scope and depth mark a step change in the long history of outsourcing energy related public services in the UK^{6,5}.

Cuts in central government funding, council tax freezes and other rule changes have reduced the net spend per person by UK councils by 23 per cent over the past decade¹.

Funding shortfalls are exacerbated by very low taxation retention rates. Taxation regimes in other European countries enable local authorities to retain four to six times as much local taxation compared to UK local authorities⁷. The UK also suffers from particularly poor policy translation from ambitious national targets into local directionality, contributions, and resourcing⁸. This leaves UK local authorities desperately short of finance and capabilities to support a just transition to net zero.

Bristol City Leap is aimed at both reducing the number of procurement exercises the Council will need to undertake as part of its transition to net zero and securing much-needed private finance to support this transition. KPIs, however, are limited to the operations of the Council. Council estates account for only about 1% of Bristol's built environment and approximately 2% of its carbon emissions while the Council's social housing stock comprises around 17% of the total 27,500 houses in Bristol. On the other hand, the council also controls about 40% of the council area's land, which is essential for increase in renewable energy supply outlined in the KPIs.

Moreover, Bristol City Leap is expected to deliver social value, with nearly 15% (£61.5 million) of the total contract value allocated to this purpose. This allocation is expected to result in the creation of over 1,000 new jobs paying at least the 'real living wage', apprenticeships, and work placements in the first five years with a particular focus on deprived areas of Bristol, a commitment to Equality, Diversity, and Inclusion throughout, and a £1.5 million Community Energy Development Fund to support community groups in developing net zero projects.

The district heating network, which was sold at investment value as part of the Bristol City Leap contract, is considered essential for decarbonising buildings that are beyond the council's control. There is an underlying assumption that energy service contracts involving the private sector significantly lower the delivery costs of projects, reduce the total cost of supplying energy services, and that a contractor like Vattenfall realises significant economies of scale with multiple clients across geographies, thus lowering prices to energy users^{4,5}. The Council is confident that their overview of pricing and profit margins will mitigate against this privatisation of the heating network leaving energy users on the network hostage to fortune.



Nevertheless, the concessions agreement entails certain risks. While the JVCo splits ownership equally between Bristol City Council and Ameresco, control rests with Ameresco while the Council retains strategic decision-making powers. This was deemed necessary to avoid public procurement rules applying to the JVCo, to transfer the energy services team to the JVCo, and to sell the district heating network to the JVCo, specifically to Vattenfall UK as the main subcontractor. As a result, several risks need to be registered and monitored to ensure its success in supporting a just transition to net zero:

- **Regulatory risk:** certain obligations or commitments may be adversely affected by upcoming legal and regulatory changes. For example, Ofgem may soon have responsibility for regulating heat networks⁹, which could restructure how those networks function in future and possibly adversely affect the Bristol City Leap partnership and underlying contracts. Furthermore, using waste heat from an incinerator might be classified as zero carbon heat in the current regulatory regime but future taxonomies might classify it as high carbon heat, thus requiring a contingency plan to shift to a lower carbon source of heat;
- **Anti-trust/competition law risk:** transparency needs to be upheld to ensure the JVCo's right of first refusal does not result in unreasonable restriction on competition;
- **Performance risk:** it is unclear whether the Council has the contractual means to hold Ameresco to the higher end of performance under the business plan;
- **Monopolistic pricing risk:** for both public owned and privatised networks that are centrally controlled;
- **Operational and commercial risk:** longer-term projects are exposed to changing investment climates and may be more susceptible to price and technological risk, as well as market, financial and political risk.

Policy implications

Following 15 years of funding cuts to budgets, which have been exacerbated by the Covid-19 pandemic, local authorities lack the capacity, skills, and financial resources to deliver on their net zero promises⁷. Therefore, decarbonisation expertise and private finance need to be crowded in to support their net zero pledges⁸.

Bristol City Leap is the largest (scope) and longest (duration) public-private-partnership of its kind to date with the aim to crowd in such expertise to support a city's transition to net zero. It promises an eight-fold increase in energy infrastructure decarbonisation investment between 2023 and 2028 and two-and-a-half-fold over the duration of the contract compared to 2017-2022. As such, finance is motivated by profit while benefiting from the transfer of publicly owned assets and trained personnel. Consequently, there needs to be close scrutiny of its procurement and transparency of its delivery and returns.

If this public-private partnership approach proves successful, other councils will want to pursue a similar approach to procuring net zero investment and delivery partners and Bristol City Leap can be an important model for learning. If this is the case, a procurement framework or intermediary similar to Refit or the Carbon and Energy

Fund would significantly lower transaction costs through contract standardisation and project aggregation, potentially through the development of a one-stop-shop, thereby avoiding the replication of expensive procurement procedures.^{10,11,4,5}

Post-Brexit, the UK government is in the process of modifying the procurement rulebook with the Procurement Act 2023 gaining Royal Assent and due to be implemented in 2024. While net zero and social value delivery have not been made mandatory above the £5m threshold, contracting authorities are required to have regard to government's strategic priorities, including *creating new businesses, jobs and new skills in the UK; tackling climate change and reducing waste; and improving supplier diversity, innovation and resilience*¹². With public procurement in the UK amounting to £300bn/a, around £70bn/a of which is accounted for by local government, more emphasis will nevertheless be placed on net zero, jobs, and social value (Sugar et al. 2022). It is therefore essential.

Furthermore, using waste heat might appear as an easy win but the lifecycle of carbon-intense heat sources will sooner or later face regulatory scrutiny. Contingency plans therefore need to be included in such long contracts to ensure that the outcome of the transition is closer to absolute zero rather than just net zero.

The new procurement focus on net zero, social value, and jobs is arguably fulfilled in this instance. However, the model remains untested on whether a different contractual arrangement that incorporates a greater range of organisations to participate in, and benefit from, Bristol's transition to net zero would yield better results.



Reference list

1. Green Alliance. (2020). The local climate challenge—A new partnership approach. Green Alliance. [The_local_climate_challenge.pdf \(green-alliance.org.uk\)](#)
2. BCC (2018). City Leap Prospectus. Bristol City Council: Bristol.
3. BCC (2022) Cabinet Report – City Leap Energy Partnership. Bristol City Council, ([Public Pack](#))Cabinet report - City Leap Energy Partnership Agenda Supplement for Overview and Scrutiny Management Board, 05/12/2022 13:30 ([bristol.gov.uk](#))
4. Nolden, C., Sorrell, S., Polzin, F. (2016). Catalysing the energy service market: The role of intermediaries. *Energy Policy*, 98: 420-430, DOI: [10.1016/j.enpol.2016.08.041](#).
5. Tingey, M., Webb, J. (2020). Net zero localities: ambition & value in UK local authority investment. Energy Revolution Research Centre: University of Strathclyde Publishing [pdf] Available at: [https://www.energyrev.org.uk/media/1440/energyrev_net-zero-localities_202009.pdf](#)
6. Nolden, C., Sorrell, S., (2016). The UK market for energy service contracts in 2014-2015. *Energy Efficiency*, 9(6): 1405-1420, DOI: [10.1007/s12053-016-9430-2](#).
7. Sugar, K., Mose, T. M., Nolden, C., Davis, M., Eyre, N., Sanchez-Graells, A., Van der Horst, D. (2022). Local decarbonisation opportunities and barriers: UK public procurement legislation. *Buildings and Cities*, 3(1), 895–911. DOI: [http://doi.org/10.5334/bc.267](#)
8. CCC (2020). Local Authorities and the Sixth Carbon Budget. Climate Change Committee : London [pdf] Available at: [https://www.theccc.org.uk/publication/local-authorities-and-the-sixth-carbon-budget/](#)
9. Ofgem (2023). Consultation on heat network regulation – consumer protection. Office of Gas and Electricity Markets, [Consultation on heat networks regulation - consumer protection | Ofgem](#)
10. CEF (2023). Carbon and Energy Fund. [Home - The Carbon and Energy Fund \(CEF\)](#)
11. Local Partnerships (2023). Refit. [Refit - Local Partnerships](#)
12. Cabinet Office (2021). Procurement Policy Note 05/21: National Procurement Policy Statement. [PPN_05_21- National Procurement Policy Statement.pdf \(publishing.service.gov.uk\)](#)

Authors

Colin Nolden, UKERC, University of Bristol
Tedd Moya Mose, UKERC, University of Oxford
Katherine Sugar, UKERC, University of Oxford, University of Edinburgh
Akshath Kommidi, University of Bristol
Sean Fox, University of Bristol

This briefing can be referenced as: Nolden, N., Moya Mose, T., Sugar, S., Kommidi, A. and Fox, S. (2023) Bristol City Leap: A novel Finance and Public Procurement Model for Delivering Net Zero. London: UK Energy Research Centre.

DOI: <https://doi.org/10.5286/ukerc.edc.000965>

About UKERC

The UK Energy Research Centre (UKERC) carries out world-class, interdisciplinary research into sustainable future energy systems. Our whole systems research informs UK policy development and research strategy. UKERC is funded by the UK Research and Innovation, Energy Programme.

UKERC is committed to making all of its publications accessible. We're always looking to improve the accessibility of our publications. If you find any problems or would like further assistance please get in touch.

Contact

Email: UKERC@ucl.ac.uk

Website: www.ukerc.ac.uk

X/Twitter: [@UKERCHQ](https://twitter.com/UKERCHQ)

LinkedIn: www.linkedin.com/company/uk-energy-research-centre

UK Energy Research Centre,

Central House, BSEER,
14 Upper Woburn Place,
London, WC1H 0NN

T: +44 (0)20 3108 7564

X/Twitter: [@UKERCHQ](https://twitter.com/UKERCHQ)