

CABINET	AGENDA ITEM No. 6
16 OCTOBER 2023	PUBLIC REPORT

Report of:	Adrian Chapman – Executive Director Place and Economy	
Cabinet Member(s) responsible:	Cllr Nigel Simons, Cabinet Member for Infrastructure, Environment and Climate Change in consultation with Cllr Andy Coles, Cabinet Member for Legal, Finance and Corporate Services	
Contact Officer(s):	Charlotte Palmer – Head of Environment and Climate Change	Tel. 07920 160728

PETERBOROUGH INTEGRATED RENEWABLES INFRASTRUCTURE (PIRI)

RECOMMENDATIONS	
FROM: Adrian Chapman – Executive Director Place and Economy	Deadline date: N/A
<p>It is recommended that Cabinet:</p> <ol style="list-style-type: none"> 1. Approves the route to delivery of the PIRI project, via a partnership arrangement, as set out in section 4.2.2 of this report, including the procurement of a partner. 2. Authorise the Interim Director of Legal and Governance to enter into any legal agreements or documentation on behalf of the Council to facilitate the decision in recommendation one. 	

1. ORIGIN OF REPORT

1.1 This report is submitted to Cabinet as a key decision to enable Cabinet to make a decision on the preferred route to delivery of the PIRI project to enable the project to progress through the Full Business Case stage.

2. PURPOSE AND REASON FOR REPORT

2.1 The purpose of this report is to consider the route to delivery of the PIRI project as detailed in this report and appendices.

A further report will be submitted to Cabinet in 2024 which, should the Full Business Case recommend construction, seek approval to proceed with the construction of the project. This report will set out for approval, the preferred partner for the project delivery, the structure of the partnership arrangement and the Full Business Case on which the recommendations are based.

2.2 This report is for Cabinet to consider under its Terms of Reference No. 3.2.1 and 3.2.7

3.2.1 To take collective responsibility for the delivery of all strategic Executive functions within the Council's Major Policy and Budget Framework and lead the Council's overall improvement programmes to deliver excellent services.

3.2.7 To take a leading role in promoting the economic, environmental and social wellbeing of the area.

3. TIMESCALES

Is this a Major Policy Item/Statutory Plan?	NO	If yes, date for Cabinet meeting	N/A
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4. BACKGROUND AND KEY ISSUES

4.1 Background

The PIRI (Peterborough Integrated Renewables Infrastructure) project effectively started in 2019 when a Heat Mapping and Masterplan study was carried out to look at the viability of a Heat Network within the city. The output report, which was completed in July 2019, illustrated that a heat network would be viable and would provide significant benefits, aligning to the council's decarbonisation commitments.

Following the Heat Mapping and Masterplan Study the council successfully secured funding from Innovate UK (via BEIS) and Private Investment to launch the PIRI project in April 2020. The project was specifically designed to deliver a Techno-Economic (TEF) and Detailed Project Development (DPD) along with an Outline Business Case (OBC).

This second phase of the project was delivered by a consortium of experts from the local authority, the energy industry and academia. The programme consisted of 6 different work packages (WP) as illustrated in figure one below.

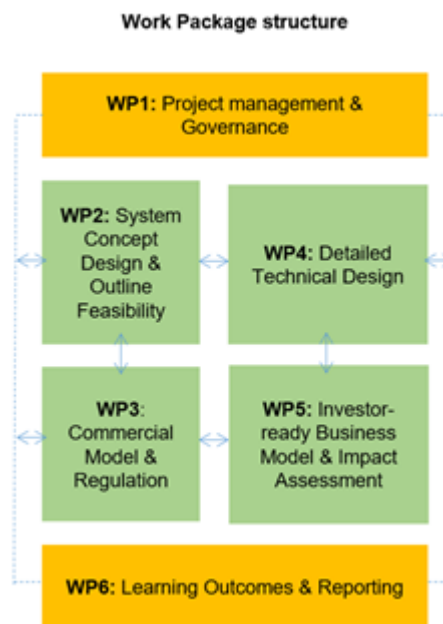


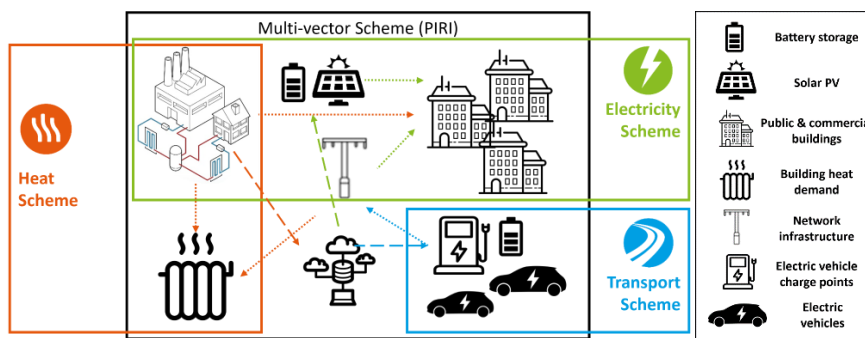
Figure one: Work Package structure

Each work package delivered key components to determine how PIRI could provide low-cost and low-carbon energy, within Peterborough, bringing together energy demand and supply using a joined up local energy system to create a better place to live and work. The project set out to achieve this by understanding the advantages of integrating both the technical and commercial aspects to create a smart, responsive, low-carbon, energy infrastructure that would support the city's future growth in the most sustainable way and provide a foundation for developing replicable, city scale design solutions for the benefit of other local authorities.

At this stage of the project PIRI set out to design a replicable integrated smart city energy system comprising a heat network, Smart Embedded Electricity Network, electric vehicle charging network and overarching control scheme (Energy as a Service platform) to create a step change

in the transition to zero carbon. Crucially, this involved developing the optimum technical solutions for integrating the energy vectors (illustrated in figure two) ensuring:

1. Local demand is met with local generation and uses the most efficient balance of heat and electricity sources within one system.
2. Increased deployment of renewable and distributed energy generation connecting to and benefitting from a smart embedded electricity network.
3. An increased number of electric vehicles charge points by viewing them as assets and not demand liabilities.
4. Maximised carbon savings by offsetting fossil fuel grid electricity
5. A better understanding of peak energy demands and encouraging diversity of energy consumption at different times of the day.



This phase of the PIRI project successfully completed in June 2022, with the production of the Techno-Economic Feasibility (TEF) and Detailed Project Development (DPD) design for the multi-vector energy system across heat, power and mobility.

4.2 Current Phase

Upon completion of the TEF/DPD phase, the project successfully applied for Round 1 grant funding from the Green Heat Networks Fund (GHNF), receiving £906,300 for the commercialisation of the PIRI scheme and a separate amount of £13.5m towards delivery, released to the authority over the financial years 22/23, 23/24, 24/25.

There are five main activities to this stage, which are described in further detail in the following sections:

1. Preferences for the Energy Centre location will be determined, and the associated requirements to secure planning consent will be understood.
2. Determination of the council's preferred route to delivery – as outlined in the recommendation of this report. This activity will form the basis of the decision in relation to the PIRI project.
3. The procurement process, including invitations to tender, for a potential partner will be undertaken using the expertise of external legal and techno/commercial advisors.
4. A full business case will be produced.
5. Stakeholder engagement activity will continue to ensure suitable customers who are necessary for the overall viability of the project are available. Provisional contractual agreements will be sought for all stakeholders, both energy off takers and providers using internal and specialist input as required.

The next Cabinet report, anticipated to be submitted in Autumn 2024, will include the full business case, proposed partner and partnership arrangement for approval, so enabling Cabinet to approve PIRI moving on to the construction phase.

4.2.1 Energy Centre Location

PIRI requires a dedicated Energy Centre, which will accommodate the distribution equipment, controls and load balancing infrastructure, enabling the heat and non-heat vectors to interact to facilitate the delivery of an integrated energy vector scheme.

The location of this centre is key to the success of the project and the council is currently exploring several potential sites. Some are located on council property and some on land owned by other organisations. Within this phase of the project, it is anticipated that the preferred sites will be identified and the requirements to secure planning consent will be understood.

4.2.2 **Determination of the council's preferred route to delivery**

Option appraisals have been prepared by the council's legal and techno/commercial advisors advising on the different commercial routes for delivery of the project.

A summary of the findings in relation to the options is set out below;

- **3rd party ESCO** - divesting the entire project, risk and returns to a 3rd party Energy Service Company (ESCO)
- **Concession** – providing a 3rd party ESCO a concession over the infrastructure for 25 to 40 years, thereafter it returns to the council.
- **Partnership** – a commercial arrangement where the council and a 3rd party share the risk and rewards.
- **Project sponsor ESCO** – The council sets up its own ESCO through establishing a wholly owned subsidiary and procures delivery service (or DBOM) contracts for operation, maintenance, metering and billing.
- **Inhouse delivery** – the council remains fully responsible for the infrastructure using in house resource

As noted above the options available to the council all result in a sliding scale of risk and reward. The more risk the Council takes the more reward it can potentially receive; however as with any investment this would also expose the council to potential losses as well.

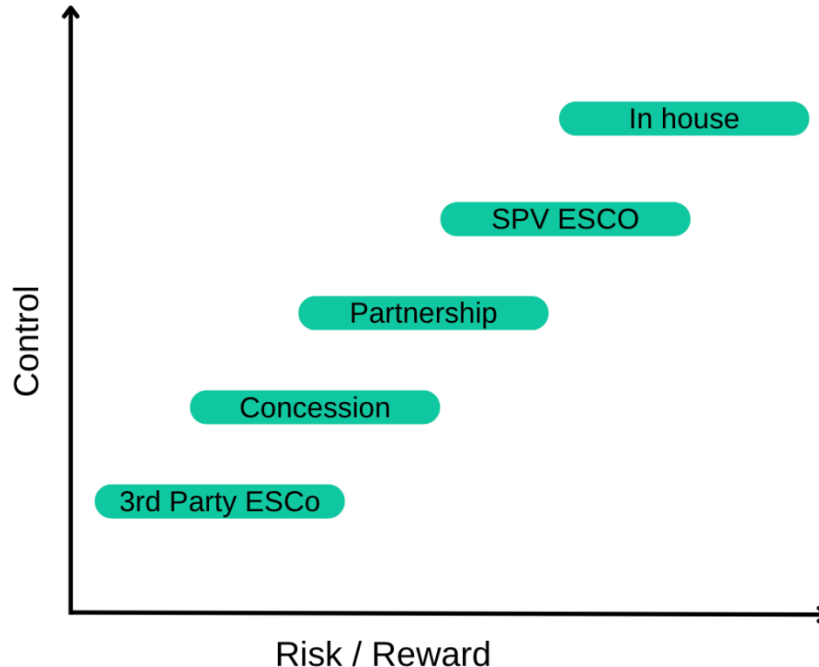


Figure 1 Risk/Reward v Control (Taken from SSE's SMT response)

Options	Pros	Cons
In House	Would receive full returns Council retains full control	Exposed to full risks –reputational, delivery & supply Require gap funding investment Internal recruitment of required resources Difficult to exit
Sponsor led ESCO	SPV receives full returns SPV retains full control	Require gap funding investment Internal recruitment of required resources Difficult to exit Supply and delivery responsibility Reputational exposure
Partnership	Share of the returns Share of the risks (allocated to the appropriate party) Easier to exit Partner provides the gap funding	Share of the returns Reduced controls Reputational exposure by association Supply and delivery responsibility by association
Concession	Fewer risks mainly relating to reputation Concessionaire provides gap funding Limited reputational exposure	No returns Limited control
3 rd party ESCO	Minimal risk 3 rd party ESCO provides gap funding Limited reputational exposure	No returns Minimal control

Table 1 Summary of pros and cons for each option

Deciding on the preferred pathway

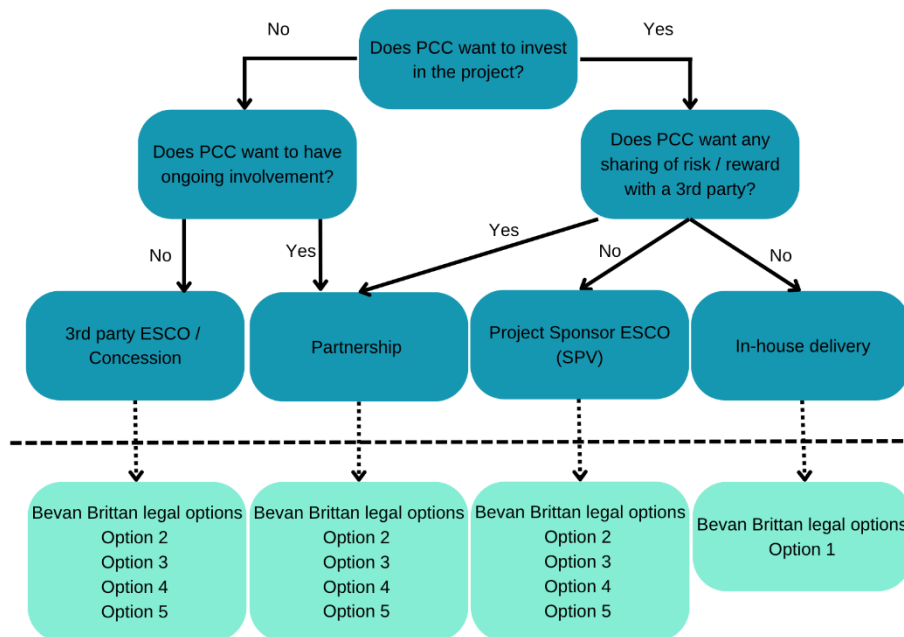
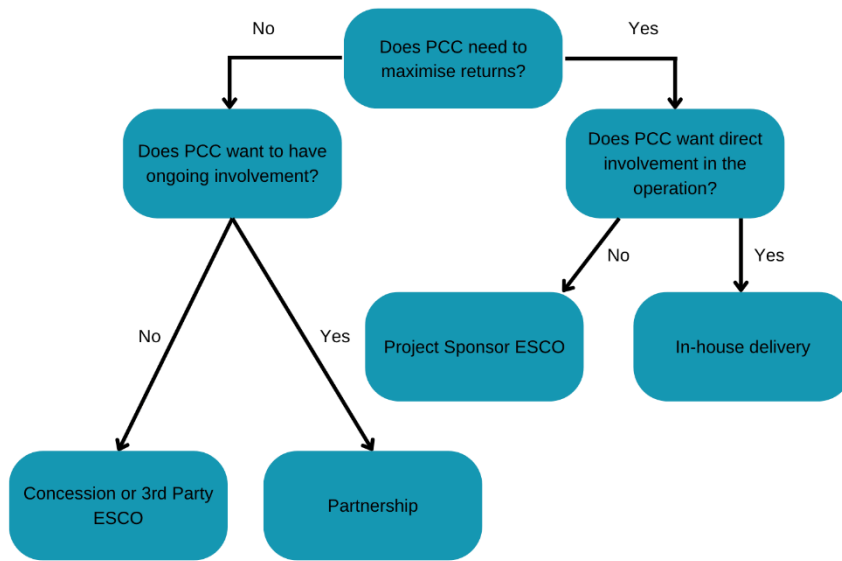
In order to crystalize the decision-making process for the council, the following key decisions have been considered;

Is the council in a position to undertake borrowing to provide direct balance sheet investment into the project?

Does the council want some ongoing role in the project in the future or is a full divestment preferred?

Is maximising returns a key success factor for the council?

The following decision trees help illustrate how the decisions to the questions above flow through preferred commercialisation pathways.



Recommendation

After analysis of the above delivery options the council is recommending the partnership route to delivery is pursued and potential partner procured to ensure:

- The council is not obliged to take on more debt to provide direct capital investment. This recognises the contribution already made by the council by way of the energy provided by the Energy Recovery Facility and the grant funding secured from the Green Heat Network Fund.
- The council is able to maintain an active role in the governance of the PIRI project whilst not requiring it to take on full delivery and supply obligations.
- To enable a return to be received from the project, so enabling the council to receive a reduced but predictable return in lieu of supply and demand side risks

Partnerships can vary in structure and this report is seeking approval for this route to be pursued. It is too early to ask for approval of the terms of a partnership, this will form the basis of a further Cabinet report in 2024 which will seek approval for the commercial structure, the proposed partner and the Full Business Case.

4.2.3 **Procurement of a potential partner**

The council will engage external legal advisors and techno/commercial advisors to assist and to advise on the procurement process.

The process will also include selection criteria which includes appropriate reference to the council's core values.

In the procurement of a potential partner the council, as project sponsor will need to establish its preferred procurement model. The most common are;

1. Traditional procurement model
2. Development partner
3. Hybrid procurement

The traditional procurement model is more suited to a project sponsor who has a clearly defined infrastructure project and is engaging with a standard procurement of the project agreements required to deliver the project. This places all of the risk on the council in the setting out of the project details upon which the supply chain is procured.

A development partner procurement would align better with a project sponsor who has not defined precisely the specific elements. It requires a partner to develop the project from feasibility stage and to test the viability and establish the basic project fundamentals.

The council has progressed PIRI past feasibility and viability, having undertaken a TEF and DPD and obtained grant funding underpinned by an Outline Business Case. The council however will need to procure a partner to finalise the development of the Full Business Case (FBC) and so sits in-between the two traditional procurement models as defined above.

A hybrid procurement model is therefore suitable, and a partner will be procured to develop the project, recognising the work the council has already undertaken. One of the benefits of a development partner could be, for example, the creation of a Strategic Partnership Agreement (SPA) (sometimes referred to as a Joint Development Agreement) to establish the principles of the governance, commercial and legal relationship.

4.2.4 **Production of the Full Business Case**

As part of the TEF/DPD phase of the project an outline business case was produced, and this formed the basis of the approval by Green Heat Network Fund for the award of the funding for this next stage.

A full business case will now be procured via the council's standard procurement process for the evaluation and commercial the route to implementation.

4.2.5 **Stakeholder Engagement**

Potential Off-takers

The council has been actively engaging in discussions with potential off-takers of the energy and this will continue throughout the next year to ensure suitable customers who are necessary for

the overall viability of the project are available. Drafts of legal agreements will be prepared to formalise the ongoing relationship with potential stakeholders.

Outcome from Soft Market Testing for Delivery

A soft market test for delivery of the project was held in the summer of 2023 and nine responses were received from firms operating in this field which all expressed a strong interest in pursuing delivery options for the council.

It was noted responses were received from companies operating across the range of delivery routes available to the council as noted above. These companies included international infrastructure investment funds who typically own and operate large scale public infrastructure, well known UK energy companies and private companies specialising in delivery and operation of decentralised energy infrastructure such as PIRI.

This positive response from the market indicates good support for the project principles and none discounted the opportunity for a partnership with PCC whilst some noted a preference for other procurement pathways more suited to their business model.

5. CORPORATE PRIORITIES

5.1 The recommendation links to the following Council's Corporate Priorities:

The Economy & Inclusive Growth -

- Environment - A district heating system will contribute to the Council's net zero commitment.
- Homes and Workplaces – Peterborough will be more attractive to new businesses as purchasing their energy supply from PIRI will enable them to achieve their own net zero targets.
- Jobs and Money – the PIRI project will promote sustainable growth in Peterborough and establish Peterborough as leaders in innovation.

Our Places & Communities -

- Health and Wellbeing – Air quality will be improved through reduced use of fossil fuel combustion in buildings.
- Educations and Skills for All – The development of a district heating system will create employment opportunities and will develop workforce skills and development opportunities.

Sustainable Future City Council -

- PIRI will deliver a more cost effective energy supply for its buildings by moving away from the high price volatility of fossil fuels.
- By entering into the recommended commercial arrangement, the Council will be able to exercise a degree of control over the project and receive a share of the returns.

Carbon Impact Assessment -

- This Cabinet Report is for approval for the commercialisation phase of the PIRI project. The work being approved will have minimal impact on carbon emissions of the City, which will be incurred if advisors travel to the city for meetings in petrol or diesel cars.

6. RISK

6.1 A risk register is maintained by the project team which is subject to regular review by the project team. As with any major project the risks will be incorporated into the Corporate Risk Register as and when required.

An extract of the register is attached as Appendix 2 which describes the major risks, mitigation and RAG status for this current stage of the project.

7. CONSULTATION

- 7.1 Extensive engagement has taken place with potential off-takers and industry partners in earlier phases of the project.

External legal and techno/commercial advisors have been engaged for this project and executive summary of the techno/commercial report is attached as Appendix 1. Further consultation will be undertaken as necessary in future stages of the project in line with the Council's standard processes.

- 7.2 An overview of the project was presented to All Party Policy on 27 July 2023. The report will be considered by the Financial Sustainability Working Group (FSWG) on 25 October 2023 and any feedback can be incorporated into the work being undertaken.

8. ANTICIPATED OUTCOMES OR IMPACT

- 8.1 The outcome will enable the council to take the necessary steps to establish a proposed commercial structure of the PIRI project. This is necessary should the council choose to commence the construction phase in winter 2024.

9. REASON FOR THE RECOMMENDATION

- 9.1 Should approval from Cabinet on 16 October 2023 be received, the work required to procure a potential partner will proceed. A full business case will be produced which will examine potential structuring arrangements. Following these steps Cabinet will be asked to approve the final delivery structure in order to complete the commercialisation phase of the project by October 2024.

10. ALTERNATIVE OPTIONS CONSIDERED

- 10.1 The alternative structures considered are described in the main body of the report.

11. IMPLICATIONS

Financial Implications

- 11.1 The recommendation is for the council to procure a potential partner to enable the delivery of the PIRI project. This work will be funded from the grant received by Green Heat Network Fund, which is set out below.

The overall cost of delivery of the two phases of the project were forecast in the Outline Business Case to be estimated at £53m, this will be reviewed and revised as part of the Full Business Case process. The Green Heat Network funding will form part of the contribution (see note below); however, a substantial investment will be required by a partner organisation.

If a contribution is required from the council, this request will form part of the next Cabinet paper which will recommend the commercial structure of the project. This request will be subject to approval by Council.

The expectation from the GHNF is that all monies are spent and accounted for against the PIRI scheme by the end of financial year 2024/2025, and the scheme has its first connections in place.

Note: Green Heat Network funding was approved following the successful completion of the Outline Business case. This however was based on a Council led and funded model, therefore if this new route to delivery is approved an approach will be made to GHNF to ask their permission for the alternative route to delivery.

Legal Implications

- 11.2 Under section 1 of the Localism Act 2011, The Council has a power to do anything an individual can do, including for a commercial purpose, subject to no other prohibition in any other legislation.

Any procurement relating to the project will be undertaken in compliance with the Public Contracts Regulations 2015 and the Council's Contract Rules.

Equalities Implications

- 11.3 No specific implications arising from this report although where necessary Equality Impact Assessments will be carried out to support decision making.

12. BACKGROUND DOCUMENTS

- 12.1 More background detail on PIRI can be located at www.pirienergy.co.uk

13. APPENDICES

- 13.1 Appendix 1 – Options appraisal for PIRI Exec Summary
Appendix 2 – Summary of Risk Register for the PIRI project
Appendix 3 – Summary of the Outline Business Case