Reconciling PFI/PPP Expiry With Net Zero Objectives

April 2022

PFI Contract Expiry

The UK's Infrastructure and Projects Authority ("IPA") recently published their guidance for contracting authorities on **Preparing for PFI Contract Expiry.** The guidance provides toolkits and recommendations for how public sector contracting authorities can approach the expiry of these contracts. The guidance also stresses the importance of all stakeholders working together and recognises that the expiry of a PFI contract will be intertwined with a separate workstream on the provision of future services.

In this context there is an emphasis on the need for the assets being handed back to support that future provision:

"At the point of contract expiry, the assets will typically be 20 to 30 years old. It is inevitable that the authority's requirements, guidance (for example, Building Bulletins) and policy/legislation (for example, net zero carbon obligations) will have changed in this period. The authority should therefore review the handback criteria to determine whether they align with future needs… the handback requirements, and thus also the focus of lifecycle spend, may need to be reconsidered in order to reflect any changes to the authority's needs"

The impetus for defining and articulating these future needs will come from the Authority. The PFI Project Company can highlight opportunities for how expiry can facilitate the transition towards future needs (either within the existing contract or through variations) but the default position for the PFI parties will be to comply with the contract as it is set down unless there is an instruction to do something different.

Changes from the existing provision will need the Authority to confirm priorities for the future use of the asset. Any consequent adjustments to the expiry process and handback requirements can be agreed and recorded as a variation to help support the transition.

Net Zero Carbon

One clear example of the challenges presented by reorienting an asset is how to reconcile contractual compliance on an expiring PFI contract with furthering progress towards Net Zero, and embedding that in the future operation of the assets reverting to public sector control.

The IPA guidance uses an example that is likely to be encountered on many PFI and PPP projects and focusses on a PFI Project Company ("PFI Co") that is planning the replacement of existing gas boilers to meet its contractual handback obligations.

The contract will have been written long before Net Zero was being explored. Against that contractual requirement the IPA guidance gives as an example of an authority that has made a net zero commitment. As part of that commitment the authority has a strategy to install heat pumps in place of gas boilers. Although the heat pumps are more expensive they have a much lower operational carbon output.

A **recent Vercity feasibility study** supports that view, and identified that for a representative 3 boiler school, replacing with ground-source heat pumps for heating (while retaining gas for hot water) could have the following impacts:

- 77% Reduction in gas consumption per annum (360,000 kWh to 80,000 kWh), with a corresponding reduction of 57 Tonnes CO_{2eq}
- 40% Increased electricity consumption per annum (130,000 kWh to 182,000 kWh), with a corresponding increase[1] of 11 Tonnes CO_{2eq}
- A net 36% reduction in whole site[2] carbon dioxide emissions tonnes per annum

For the original site emissions that remain, there is a change in classification for the majority from Scope 1 (for boiler gas) to Scope 2 (for heat pump electric). The change in Scope classification could link with the procurement of certified zero-carbon electricity, which would eliminate those Scope 2 emissions entirely.

1 Based on a grid emission factor of 0.21233 kgCO2eq (BEIS 2021)

2 Including power and lighting, based on standard grid supply

The IPA guidance identifies three options in this scenario:

Example of altering the handback criteria or lifecycle works

The PFI Co proposes the replacement of three gas boilers prior to expiry at a cost of £40k. The authority, which is making plans to meet a carbon neutrality target that will apply at a date after PFI contract expiry, has undertaken a review of net zero carbon technologies and wants to install heat pumps at a cost of £60k.

Option 1 – The PFI Co replaces the boilers, meeting the handback criteria. The authority then changes the gas boilers for heat pumps four years after expiry to meet its net zero target. The full cost of the heat pumps is borne by the authority.

Driven by the requirement to comply with the contract, Option 1 will be the default position.

Option 2 – The authority instructs the PFI Co to defer the replacement and negotiates a commercial settlement (reduction in the unitary charge), which will be used to part-fund the heat pump project following expiry. The risk of any disruption to services and additional maintenance costs due to failure of the old gas boilers reverts to the authority unless otherwise agreed. These risks are considerable, including in a worst-case scenario a building that is unavailable due to boiler failure but with continued full-service payment obligation.

Option 2 would need the authority to indemnify the PFI Co against any failure of the boilers. That could present an operational risk that many contracting Authorities find unacceptable. If the boilers failed (increasingly likely if life-expired) then there would be no contractual deductions and the authority would need to fund replacements.

This option would also defer the realisation of the environmental benefits from carbon reduction.

Option 3 – The authority negotiates a variation, including a change to the handback conditions, to replace the gas boilers with heat pumps prior to expiry. The estimate shows that the heat pumps add £60k to the project costs, but the £40k for boiler replacement is omitted. The authority pays the extra over-cost (£20k), with the work completed by the PFI Co. The cost benefit of this option would need to include the legal and technical costs of negotiating the variation, which could be considerable, particularly if lender consent is required.

Option 3 enhances the contractual baseline and the authority only contributes the enhancement. The IPA correctly identifies that legal and technical costs would need to be considered. There will also be practical considerations, such as whether the heat pumps will fit where boilers currently located, that could impact cost.

There may be grant funding available calculated against the total impact of the upgrade to heat pumps, not just the authority funded proportion.

The third scenario should be optimal, and if the variation takes place after the debt has been repaid there will be no requirement for lender consent.

Early discussion on potential replacement and timing of any variation will need the PFI Co and the Authority to work together on timing of replacement and how best to unlock available grant funding.

To maximise the impact and benefits other measures may also be considered such as also converting water heating and/or installation of solar panels. Considering these will need specialist input and the Authority could benefit from assessing this while the PFI consortium and its expertise are in place rather than waiting until after contract expiry.

Why wait until expiry?

The example outlined by the IPA guidance is not only relevant for those projects approaching expiry; it could be adopted pro-actively now by understanding when boilers are programmed for lifecycle replacement and varying the criteria. Depending on the availability of grant funding it may be possible to meet some or all of the additional cost while any future replacements (the £20k from the example) could be spread over several years as additional unitary payment rather than being found as a single lump sum.

As the use of water to water heat pumps on a wide scale retrofit solution serving an existing hydronic heating system is still relatively new technology it is unlikely to yield any material maintenance savings, but nor should there be a material increase. That should not detract from the potentially significant carbon reduction impacts.

Using the example, but for a project that still has 15 years until expiry, deferring a decision could lead to a further 555 tonnes of carbon dioxide being emitted into the atmosphere.

Complex Projects

For multi-stakeholder projects such as PFI and PPP, the approach of enhancing a contractual baseline is likely to be the most realistic and cost-effective route to achieving Net Zero objectives while also ensuring that assets are positioned for their future purpose. Implementing these enhancements while there is an existing and established consortium managing the asset brings the expertise to bear and will ensure any initial operational issues or snagging can be ironed out.

Effective collaboration between parties allows for these replacement decisions to be approached to achieve mutual benefit where the owner may benefit both from their own emission reductions and potentially through more efficient equipment which consequently may require lower maintenance or have longer equipment life.

Vercity has demonstrable experience of ensuring continuity of service to critical social infrastructure during periods of transition. We have a track record of managing contracts before and after the point of expiry, and of delivering infrastructures contributions towards net zero targets.

For further information on the topics discussed, please contact:

- Preparing for Net Zero: Mark Cade (mark.cade@vercitygroup.com)
- Asset Innovation: Dan Earnshaw (dan.earnshaw@vercitygroup.com)
- PFI / PPP Contract Expiry: Patrick Hamill (patrick.hamill@vercitygroup.com)

Vercity