





<b>Sector:</b>	Street Lighting
<b>Procuring Authorities:</b>	Newcastle City Council and North Tyneside Council
<b>Unitary charge (nominal) and per annum (2014):</b>	£74.8million (total nominal whole life cost) £12.3million (annual cost for the year to 2015)
<b>Annual savings:</b>	£220,000
<b>Total savings:</b>	£4.1 million
<b>Date of financial close:</b>	31 March 2004
<b>Service commencement date:</b>	01 July 2004
<b>Expiry date:</b>	30 June 2029
<b>Summary of project:</b>	

The project involves the replacement and maintenance of approximately 66,000 lighting columns and 8,000 traffic signs and bollards over a 25 year concession.

The main objectives of the project are: reduction in accidents and crime and to support regeneration.

The project is split into Area A (Newcastle) and Area B (North Tyneside) in the original contract structure. This allows each of the councils the opportunity to make amendments to the contract independently without impacting the overall PFI arrangement. Newcastle's columns represent roughly 55% of the columns included in the PFI project. The project also uses green electricity, generated from renewable energy sources such as hydro-electric and wind power.

<b>Counterparties:</b>	Newcastle City Council ("NCC") & North Tyneside Council ("NTC")
	Tay Valley Lighting (Newcastle North Tyneside) Limited (TVL) comprising:
	<ul style="list-style-type: none"> <li>▶ Scottish &amp; Southern Energy, 50%, from: 2004 – present</li> <li>▶ Royal Bank of Scotland, 50%, from: 2004 – present</li> </ul>

## Background

Local Partnerships supported North Tyneside Council to undertake an Operational Savings Review in 2011 which identified a number of possible options to reduce the unitary charge. The savings opportunities were evaluated and North Tyneside Council prioritised savings in the following areas:

- ▶ Energy efficiency measures, including switching off lighting, using more energy efficient lighting and replacing illuminated signs and bollards with reflective ones;
- ▶ Reducing lifecycle costs by removing unnecessary signs, extending painting cycles and extending high mast service schedule;
- ▶ Reducing operating costs by increase non-emergency response times, combining operational activities such as bulk lamp change, cleaning and inspections and removing the requirement for customer satisfaction survey;
- ▶ Reducing monthly payment cycle; and
- ▶ Commercialisation of the council depot.

The chart opposite shows a breakdown of the annual savings estimates (excluding investment) for each savings area. The total savings were estimated to be £700,000 – £800,000 per annum.

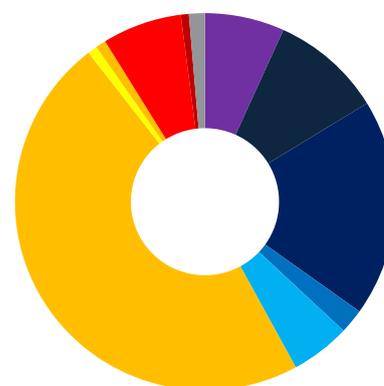
## Areas targeted for Savings

The councils targeted savings in a number of areas. The main target of savings activities was to reduce energy consumption through new technologies and changes to operating procedures to eliminate any unnecessary energy use.

## Annual Savings Estimates

(excluding investment)

- Increase non-emergency response times from 5 days
- Combine bulk lamp change, cleaning and inspections
- Extend painting cycle
- Remove requirement for customer satisfaction survey
- Extend high mast service schedule
- Energy efficiency retrofit programme
- Remove unnecessary signs
- De-lighting or control of illuminated bollards and signs
- Replacement and control of car park lighting
- Review if any areas can be de-lit
- Reduce monthly payment cycle





## Approach taken

The council explored technical changes in partnership with the contractor. The main activities included:

- ▶ A condition survey of all assets to determine where lifecycle replacement cycles could be extended or determine where signs can be removed
- ▶ Evaluation of proposals for technologies to reduce energy consumption, including introduction of a central management system to allow lighting reductions or switch-off and use of lower energy lamps.

## Contractual levers

There were two key contract levers that were helpful in making savings in the project.

Firstly, the payment mechanism transferred some energy consumption risk to the contractor. This risk transfer provided an incentive for the contractor to engage in exploring the savings options.

Secondly, the change mechanism was used to implement the energy efficiency lamp change. The change mechanism provides for the council or contractor to propose changes.

## Process

Once the savings were identified, the process to implement them was:

- ▶ Agree technical changes required in partnership with the contractor;
- ▶ Capture key commercial principles in a heads of terms document; and
- ▶ Formalise the changes in a change notice or "Deed of Variation".

## Savings achieved

An initial phase of savings was agreed in early 2013. This included the following technical changes:

- ▶ Energy efficiency retrofit measures (removal of low sodium lamp and replacement with non-LED lamps)
- ▶ Switch-off illuminated bollards and replacement with reflective ones
- ▶ Lighting reductions or switch-off (dimming and trimming) through introduction of a central management system (CMS)
- ▶ Switch-off traffic signs
- ▶ Reducing lifecycle replacement costs by removing redundant signs.

These measures are forecast to save the council £220,000 per annum, or £4.1m (nominal) over the remaining life of the contract.

The council is continuing to progress savings by replacing approximately 7,000 units with LED lights.



## Key success factors

The key success factors for the authorities were:

- ▶ robust technical analysis to underpin savings estimates;
- ▶ council led approach to analysis to identify savings;
- ▶ Proactive engagement with contractor to identify technical solutions;
- ▶ Establishing a standalone savings work stream, with appropriate resourcing and governance;
- ▶ Focus on reducing energy costs to the benefit of both council and contractor;
- ▶ Willingness to challenge the existing operations approach and getting member buy in to make changes; and
- ▶ Willingness to explore alternative sources of funding including public sector energy efficiency loans.

## Resources

The council established a team which comprised the contract manager together with resources from the council's commercial services team. This team reported to the Director of Finance and Resources. Local Partnerships provided support both in the review and implementation phases.

## Wider lessons learned

The wider lessons learned are:

- ▶ In the street lighting sector there have been advances in technology and changes to energy costs which may justify making changes to some PFI projects;
- ▶ A periodic review of all costs is useful to identify where costs are being incurred unnecessarily; and
- ▶ Changes may have an impact on the payment mechanism and any gain/pain share mechanisms, which may need to be re-calibrated.

## Replicability matrix

There are 32 Street lighting PFI projects sponsored by the Department for Transport, signed between 2003 and 2011. Many of the later projects will already use energy efficient lighting, so some savings will not be relevant to later projects.

Sectors where savings might be replicable are as follows:

- x Fire (accommodation)
- ✓ Street Lighting
- ✓ Housing (partially)
- x Joint service centres (LIFT)
- x Leisure
- x Schools – non BSF
- x Schools – BSF

## Contact

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