



FINAL BUSINESS CASE

Private Finance Initiative (PFI)

**Street Lighting, Illuminated Traffic Signs,
Bollards, Beacons and Subway Lights.**

Redacted Version

(information that is commercially sensitive has been removed)

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1.0 Executive Summary

In November 2005, the Department for Transport (DfT) announced the bidding round for an allocated £600m of PFI Credit for Street Lighting schemes in which the Authority submitted an Expression of Interest (Eoi) and subsequently an Outlined Business Case (OBC) in January 2007 and May 2007, respectively. The OBC was endorsed by DfT in May 2008 authorising the Authority to enter into procurement under EU competitive dialogue regulations.

1.1 Procurement Process and Competition

Since May 2008, the procurement has progressed under EU regulations (Competitive Dialogue) using standard documentation contained in the Local Partnership (formerly Local Partnerships) Street Lighting Procurement Pack and the Standardisation of PFI Contracts version 4 (SOPC4).

The Authority issued its Invitation to Submit Outline Solutions (ISOS) to three bidders in May 2008 and, having deselected one bidder, took only two bidders forward to the next stages. On the 12th January 2011, the Authority announced Tay Valley Lighting, wholly owned subsidiary of Scottish Southern Energy, as being its Preferred Bidder. Tay Valley Lighting will be referred to as the new Service Provider (SP) throughout the remainder of the document.

The project is now looking to award the contract on the 20th April 2011 and is therefore seeking approval from the DfT for this, the Final Business Case (FBC), by the 11th March 2011. Service commencement is planned for the 1st August 2011 following a mobilisation period of approximately 12 weeks required by the new SP.

1.2 Project Objectives

The Street lighting and Traffic Sign PFI project was developed in support of the Authority's Corporate Plan and the Sustainable Communities Strategy (2008 – 2023). The Authority is pleased to announce that the improvement in street lighting assets will continue to support these plans as outlined in section 2.1.3 of this document.

1.3 Key Drivers

At a local level the Authority identified a number of key drivers for change which could potentially be achieved via street lighting credits.

The key drivers identified during the OBC remain unchanged, albeit, they have been updated and revised and set out in section 2.2 and listed below as follows:

- i) Public Perception
- ii) Carbon Footprint
- iii) National and Local Transport Plan
- iv) Reduced Crime and Fear of Crime
- v) Age and Condition of Stock
- vi) Performance Management

1.4 Financial Issues and Affordability

1.4.1 Options

A number of investment options were examined as part of the OBC review to improve the contribution that the street lighting service makes to key corporate strategies and objectives.

The OBC review was based on best practice options appraisal guidance from the Local Partnerships and included an analysis of the following options, summarised in **Table 1** below.

Option	Description
Do Nothing	No renewal programme and only reactive maintenance of existing stock
Do Minimum	Introduce additional investment to seek to sustain the delivery of the current service in the medium term
Partial Replacement	Introduce investment to replace 50% of the infrastructure needing replacement
Fast Track Replacement	A fast track investment for replacement of non compliant stock within 5 years to bring the whole of the lighting infrastructure up to modern day standards
Full Replacement	Replacement of the entire stock within a 5 year period.

Table 1: Option Outlines

At OBC the fast track option was identified as being the most attractive option in achieving the highest Benefit Cost Ratio (BCR) and also the highest non financial benefits compared with the options evaluated.

A range of procurement options were also evaluated with the results concluding that the PFI procurement route achieved the best match with the project criteria. The Authority commenced with the PFI approach for procurement in May 2008 following DfT endorsement and throughout the process has continued to assess the Net Present Value (NPV) of the economic benefits from the reduction in crime and road traffic accidents (RTA's). An updated assessment is outlined in section 3 of this document and shows that although the BCR has changed it is broadly in a similar place to that assumed in the OBC.

1.4.2 Affordability

The Authority has met the commitment it made when submitting the OBC to maintain and increase the current budget available to street lighting in addition to the annuity grant support provided by the DfT. The Authority's Cabinet approved this support on 18th April 2007. Members were made aware that any changes in the base assumptions would influence the contribution level required.

The Council further demonstrated its support for the project by earmarking £1m in additional contribution over the lifecycle of the project when it set its 2009/10 budget.

Affordability has been a significant issue for the Council. It has been clear that it would be difficult to deliver the scope of this project within the affordability envelope. Therefore, much effort has been made by the authority to review all costs within the project to deliver an affordable project within the scope. This includes continuous affordability assessment tests and ongoing dialogue throughout the procurement with the DfT.

The Authority is pleased that the project is affordable following protracted negotiations by the team.

1.4.3 Continuous Efficiency Savings

Given that the Government is currently engaged in a deficit reduction plan, the Authority is aware of the recently published paper by Infrastructure UK (IUK) to assist Private Finance Initiative (PFI) contract managers to identify and implement savings measures that will reduce costs while maintaining frontline services.

Given that VfM is a key rationale for the use of PFI contracts, the Authority recognise that it is therefore crucial to consider cost benefit issues relating to risk register and the whole life effects (in terms of cost and quality) of any changes to the project.

1.5 Contract and Payment Mechanism

1.5.1 Contract

The Authority has used standard documentation wherever possible whether derived from the Standardisation of PFI Contracts Version 4 (SoPC4) or the Local Partnerships Street Lighting Procurement pack.

1.5.2 Payment Mechanism

The Authority used the standard form Payment Mechanism and developed a project specific version to reflect the technical aspects of the project, such as Remote Monitoring System, not covered in the standard form. The Payment Mechanism is aligned to the Output Specification and has had input from the Authority's external financial advisor and external technical advisor. The Payment Mechanism has been negotiated with the new SP who is comfortable that the position agreed ensures a deliverable project.

1.5.3 Output Specification

The Authority set out an Output Specification within its OBC and is pleased that this has, apart from minor amendments to suit specific Bidder requirements for ease of operation, remained consistent and unchanged throughout the procurement of the project. The Output Specification refers to a number of Method Statements, which set out TVL's methods and procedures for the delivery of the Service in relation to those elements of the Service to which they relate. These Method Statements are contained in Schedule 5 of the Project Agreement (PA).

1.5.4 Commercial Negotiations and Derogations Table/Risk Allocation

The project agreement is based on the Local Partnerships SLPP Model Contract and SoPC Version 4 (issued in March 2007) and developed in accordance with HM Treasury and Local Partnerships guidance.

The Authority has proceeded on the basis that the Local Partnerships SLPP Model Contract will be mandatory drafting, and that all material changes to this form have been formally approved by the DfT as derogations.

The Authority has negotiated a position with regard to risk transfer which only retains the risks that the Authority is able to manage more cost effectively than the new SP.

1.6 Project Scope

The project scope as outlined in the OBC has been managed by the project manager on a day to day basis and directed by the project board. The project scope has been reviewed to ensure that both the contract outcomes are achieved and that the business is able to embrace the changes upon commencement of service.

1.7 Contract Management

1.7.1 Approach

Knowsley Borough Council fully endorses the Local Partnership guidance to contract management and has established a structure that will effectively administer and manage the contract. The PFI contract team is part of the wider highways contracts team managing all the Authority's civil engineering and highways contract functions. The PFI contract management unit will have two dedicated officers, a contract manager and a technical administrator both reporting to the highways contract manager. Further support will be sought from other experts across the Authority as and when required, for example communications and customer services.

The Authority has also made provision for technical support from 2020 Knowsley both during and post the Core Investment Period (CIP) to cover ongoing technical services and market testing at a level relevant to the proposed future works of the PFI provider. It is understood this will be an ongoing requirement following the CIP although at an appreciably lower level than during the construction phase of the CIP.

The PFI contract manager has been in post for some time and both this officer and technical support from 2020 Knowsley has been involved throughout the procurement stages of the project and more recently during the fine tuning of the contract documents. As a result these officers are well placed to take this experience forward into the operational contract phase of the project.

The Authority has invested in the contract management team to ensure that the right skills and competencies are in place for the operational phase. Additionally a robust training schedule is being developed further to ensure on going training and support is given to the team.

The Authority is committed to working in partnership with the Service Provider to ensure consultation is focused and effective in contributing to the Service delivery objectives. To allow full partnership working, the creation of three (3) boards: a Partnership Board, a Contract Management Board and an Operational Management Board. These shall be made up of representatives from the Authority and the Service Provider.

1.7.2 Implementation of the Contract

1.7.2.1 Mobilisation Plan

Following the contract award the Authority has allowed 12 weeks for mobilisation. During this period the new SP will recruit and train staff, design schemes, refine the works programme and establish the depot. The new SP has provided a detailed mobilisation plan which acknowledges the timescales required to undertake the specific task involved including the back office requirements which can often take as long to establish as the on site operational issues.

1.7.2.2 Performance Monitoring

The Authority acknowledges that one of the main activities placed upon the contract management team is assessing the performance of the new SP against that set out in the output specification and method statements. Managing service performance is fundamental to the contract, as it is through this process that payments to the new SP are calculated and any deductions are negotiated and agreed.

2.0 Project Objectives

2.1 Business Strategy

2.1.1 – Introduction

In November 2005, the DfT announced the bidding round for an allocated £600m of PFI Credit for Street Lighting schemes. In response to the DfT initiative, the Authority duly submitted an Expression of Interest (EoI) in January 2007 which was followed by the Outline Business Case in May 2007, which was endorsed by the Minister for Transport in May 2008. These submissions were based on the fact that, despite a good maintenance policy, numerous unit failures are evident in the Borough due to the poor condition of the stock. This document is written in line with the DfT's own guidance, using the advice and support from Local Partnerships and other Authorities that have already progressed with similar PFI projects.

2.1.2 - National Context

i) Department for Transport

The DfT has identified five objectives which focus on the delivery of its business:

- To support national economic competitiveness and growth, by delivering reliable and efficient transport networks;
- To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of avoiding dangerous climate change;
- To contribute to better safety, security and health and longer life-expectancy through reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health;
- To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

Six key tasks were identified which were required to deliver its objectives:

- Improving the current operation and capacity of transport networks and services, and providing better information for travellers;
- Shaping the future pattern of demand for transport, including through land-use planning and appropriate pricing;
- Tackling the environmental impacts of transport through pricing, regulation, technology, consumer information and promoting efficient use of resources;

- Planning and managing investment programmes for the long-term;
- Regulating and licensing certain transport services and operators;
- Managing information and delivering services to support wider Government objectives.

A series of initiatives have been devised to implement these areas of focus, with implementation of further street lighting PFI schemes being one of them. The Department has PSA targets which improvements in street lighting will make a contribution to: these are explained later.

ii) Policy reviews

The Stern review into Climate Change recommended that technology changes be promoted which actively encourage the reduction in emissions of CO₂. The replacement of outdated streetlights with modern energy efficient luminaries provides the opportunity for the DfT to secure contributions to the Kyoto target agreed by the Government.

The alternative being considered by some local authorities to reduce costs and CO₂ is to switch off street lighting. However, the result could be increased social problems such as crime and road traffic accidents. Therefore, the Authority does not support this policy and is seeking to maximise the use of technology through the implementation of remote monitoring systems and the development of policies, such as the variable lighting policy.

2.1.3 Local Context

i) Knowsley: The Area

Knowsley is a predominantly urban area and is part of the Merseyside conurbation. The present Metropolitan Borough was formed out of the Local Government Reorganisation on 1st April 1974. The population of Knowsley is dispersed between a number of suburban townships including Huyton, Kirkby, Prescot, Whiston, Halewood, Stockbridge Village and Cronton, with no single centre of population. There are also significant rural areas between the suburban townships.

ii) Authority's Vision and Community Strategy

The proposal has been developed in support of the Authority's Corporate Plan for 2010-2011. The Corporate Plan shows how the Authority will deliver its part of the Sustainable Community Strategy (SCS), the borough wide strategy in which all partners have a role to play. The Authority's vision is to deliver services that address the priorities contained in the SCS in a way that we are always 'Improving People's Lives'. Four corporate objectives have been agreed outlining how this vision will be turned into reality.

The Sustainable Community Strategy 2008-2023 is the 15 year vision for residents, businesses and agencies working in Knowsley. The Authority is one partner contributing to the vision of 'Knowsley: the borough of choice'. Achieving this vision needs the involvement of all, and all partners and agencies within the Local Strategic Partnership have agreed to contribute towards delivering seven key strategic drivers of change.

The outcomes and performance targets to be reached within the SCS are currently brought together into a Local Area Agreement (LAA). There are opportunities for an improvement in street lighting to support these plans.

Table 2 shows how the four objectives within the Corporate Plan assist in delivering the seven key drivers within the Sustainable Community Strategy.

	Every Child matters	Healthy, Independent	Prosperous Knowsley	Safer and Stronger
Raising attainment and skills				
Unlocking the potential and raising aspirations				
A well connected Knowsley				
A diverse and prosperous economy				
Safer more cohesive communities				
Improving the offer and quality of place				
Increasing economic activity at all levels				

Table 2: four objectives within the Corporate Plan assist in delivering the seven key drivers within the Sustainable Community Strategy.

It is critical that investment in the Borough’s infrastructure, such as street lighting, is part of this ambitious programme. This project seeks to provide a holistic solution to address the needs of the Borough by the replacement of the street lighting and illuminated signage over four years.

2.2 Drivers for Change

2.2.1 – Perception

The Authority believes that the physical appearance of the streets and their immediate surroundings have a significant impact on residents’ quality of life. A poor quality street environment was identified at OBC as giving a negative impression of the area. These impacts on people’s perceptions and attitudes and increases feelings of insecurity: these issues are being addressed through the delivery of a single environmental programme within Knowsley. This project can contribute positively to this counteracting this negative impression.

2.2.2 - Carbon Footprint

Knowsley is fully committed to tackling Climate Change with the Authority being signatory to the North West Climate Change Charter and the national equivalent, the

Nottingham Declaration on Climate Change. The Authority's first 'Climate Change' Strategy was produced in 2008 as well as joining the Carbon Trust's Carbon Management Programme to develop a Carbon Management Plan. The Authority has a target to reduce carbon emissions by 3% in 2010 as part of the 10:10 campaign. Some examples of the Authority's current activities include:

- Using blend of 5% bio diesel in fleet vehicles and taking environmental considerations into account when purchasing new fleet vehicles;
- Working with residents and registered social landlords to improve the energy efficiency of dwellings;
- Requiring 10% renewable energy in large developments as part of the land use planning system;
- Installation of ground source heat pumps in all of the borough's new learning centres;
- Provision of recycling facilities in council buildings a comprehensive recycling service to local residents;
- Implementation of an Authority staff travel plan to reduce car use.

Given that street lighting accounts for approximately 20% of the Authority's CO₂ emissions (see **Figure 1**) a modern and improved street lighting asset will result in significant efficiencies in energy consumption and as a result will assist in our overall strategy to reduce the Authority's carbon footprint by an estimated 11,331 tonnes of CO₂ over the length of the contract.

Furthermore, in order to ensure that the Authority gains the maximum benefit from the new street lighting assets a Variable Lighting policy has been developed and agreed at Cabinet on September 2009. The implementation has been delegated to the Executive Director of Regeneration, Economy and Skills in consultation with the portfolio holder. This policy will enable the Authority to dim and trim the street lighting assets thus reducing the Authority's CO₂ emissions by up to 31,947 tonnes over the length of the contract, if the highest dimming regime outlined within the policy is approved. This will also support the DfT's target (PSA 7) on reducing greenhouse gas emissions.

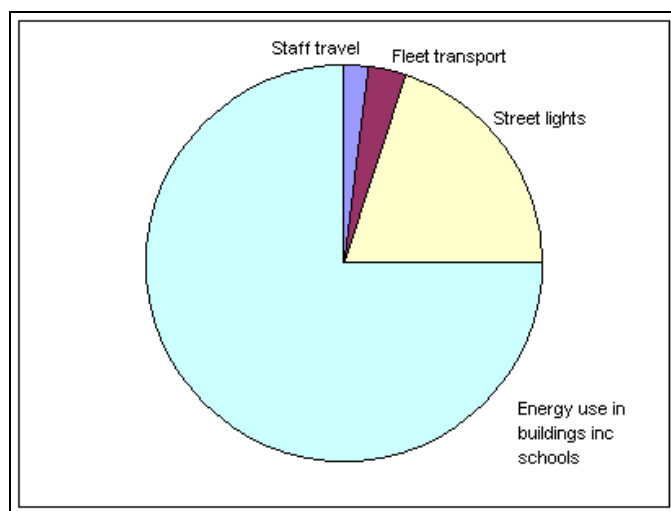


Figure 1 – Knowsley Council current carbon footprint

2.2.3 - The Government's Ten Year Transport Plan and the Local Transport Plan

At the OBC stage the project supported the targets set out in the Local Transport Plan 2 (LTP2). This plan expires in March 2011 and will be replaced by the Local Transport Plan 3 (LTP3) across Merseyside. The Authority is pleased that the project outcomes will continue to support the LTP3 and as such these outcomes have been factored into Knowsley's local implementation plan to ensure the support is specified.

Existing targets within the ten year Transport Plan highlight that good quality street lighting makes people more willing to walk and cycle and travel on public transport during the hours of darkness, or when walking to and from school in winter and therefore supports integrated transport objectives. Key targets relate to Safer Routes to Schools, Road Safety, Casualty Reduction, Community Safety and Transport Initiatives to encourage Modal change.

LTP3 will differ from its predecessor, in that it will consist of two parts. The first part will set out a long term transport strategy for Merseyside until 2024, which has six strategic goals. Beneath this long term strategy, districts such as Knowsley will have an implementation plan, setting how they intend to deliver the six strategic goals at a local level.

It is anticipated that the PFI street light and traffic sign project will be a factor in Knowsley's local implementation plan, and will contribute to a number of the strategic goals specified in Local Transport Plan 3.

The Government's targets for Road Traffic Accidents are recognised in the Merseyside LTP and in some cases for Knowsley these are stretched targets to reflect poor accident rates which have historically been associated with the more deprived areas of the borough. It is also recognised that improved street lighting and traffic signage can contribute to the achievement of these targets. While much of Knowsley's street lighting stock is in need of replacement there are no current methods of funding this work through either the current or forecast LTP process. The Authority therefore considers that investment through a PFI would help meet its very demanding road safety targets.

2.2.4 - Reducing Crime and Fear of Crime

Despite recent improvement in the recorded levels of crime and antisocial behaviour as a result of the initiatives deployed by the Safer Knowsley Partnership (Local Authority, Police, Fire Service, PCT and Probation Service), the Authority fully recognises the role of good street lighting in the deterrence of crime and wishes to affect a holistic solution, including improved lighting.

Improvements in street lighting have been identified by members of the Knowsley Voice Resident's panel as something that will make them feel safer. Although other factors such as more police on the beat and neighbourhood wardens scored higher, the proportion of residents identifying a need for improved street lighting increased from 16% in 2006 to 39% in 2007.

Targeted improvements in street lighting have been identified as forming a part of the overall strategy. The design of this project is such that it should ensure maximum benefit in reducing crime in the Borough. This will be achieved through better lighting standards and the ability to provide enhanced lighting in hot spot crime areas and town centres.

2.2.5 - Road Traffic Safety

The current Government targets for casualty reduction (DfT PSA 5) are:

- By 2010, reduce the number of people killed or seriously injured (KSI) in road crashes by 40% from the 1994-1998 average.
- By 2010, reduce the numbers of children killed and seriously injured in road crashes by 50% from the average for 1994-1998. In Knowsley, this child casualty reduction target has been stretched to a 64% reduction in the Local Transport Plan 2006-11 (LTP2).

There has been a reduction in all people killed or seriously injured since the baseline and children killed or seriously injured over the same time-scale. Knowsley's ongoing programme of engineering and education, training and publicity measures should continue to have a positive effect on Knowsley's casualty trends.

All relevant plans including the latest LTP2 consistently target a higher reduction in accidents. Given these challenging targets, improved street lighting has the potential to contribute to the national casualty reduction objectives. Indeed, Transport Research Laboratory (TRL) research indicates that on average, night-time accidents can be reduced by up to 30 per cent, when new lighting providing modern standards of illumination is installed.

In developing the programme for street lighting replacement the number of accidents and their location, i.e. areas of "high concerns", will be considered to ensure that new columns/luminaries are installed at an early stage in the replacement programme. This will also encompass accidents caused by slips, trips, and falls on highway defects.

Lessening the impact of road casualties in Knowsley will have a beneficial effect for Knowsley's communities and the wider economy ultimately creating healthier and more vibrant communities. The benefits of improving road safety go beyond reducing casualty statistics, impinging as it does upon the quality of life and "liveability" of urban areas.

Knowsley Council recognises the benefits of travel planning for children, schools and the neighbourhoods in which they impact and has resolved to play a leading role in terms of developing school travel plans. School travel plans are designed to encourage children to walk or cycle to school, thereby reducing the use of the car during the morning and afternoon peak time. This will impact upon traffic congestion, toxic pollutants and children's levels of fitness and general wellbeing. The decision to allow children to walk to and from school (especially during the darker winter months) is not one that is taken lightly by parents. The provision of good quality street lighting is a factor in alleviating

parents concerns about their children's safety on the school journey, especially with regard to levels of crime and road safety.

2.2.6 - Current Budget Allocation

The Authority's current spending on public lighting has been ring-fenced and increased by 11% between 2006/07 and 2010/11, illustrating the heightening levels of maintenance expenditure that are required to sustain the current levels of illumination in the context of an ageing stock. The authority has also been required to ensure that the increasing costs of energy have been met without top-slicing the street lighting maintenance budget.

The levels of capital expenditure available for street lighting are minimal. Indeed, there is no designated capital replacement programme. Therefore, the Authority is unable to sustain the required level of replacement in order for the Authority to provide a level of illumination that meets recommended lighting standards.

2.2.7 Condition of Stock

As a result of the inadequate capital and revenue investment over many years, a significant and rapidly growing proportion of the street lighting stock exhibits visible signs of deterioration, structural degradation or failure.

However, the Authority acknowledges this previous under investment and has implemented a programme to assess the condition of its stock in detail. This has included establishing a policy of visual inspection of its columns, which has enabled replacement schemes to be prioritised on a worst-case basis. Through this initiative, numerous units have been replaced because they have become deteriorated beyond repair. The Authority's has continued with this programme and will continue to do so until Service commencement for any identified columns considered to be at risk.

2.2.7.1 - Age and Stock Profile of Lighting Columns

A particularly critical area identified at the OBC stage, and considered still relevant at the FBC stage, is the deterioration of an aged lighting stock. This is a national problem and is not peculiar to the Authority. However, it is still a major concern for Knowsley in terms of structural and electrical integrity. In broad principle the condition of the lighting stock will vary with age, but it is known that only approximately 35% of the lighting within the Authority complies with the modern accepted standards of safety and lighting design standards. Many of the steel and concrete lighting columns are more than 30 years old and retained in use beyond their 25-year design life. 30% of steel columns are currently over 20 years old and therefore are currently, or will become life expired within the next few years. Steel columns of this age may be expected to show signs of corrosion particularly at or below ground level and at the joint between the shaft and the base. The majority of the Authority's steel columns are not galvanised and are highly susceptible to accelerated corrosion from the elements.

Concrete columns that are greater than 25 years old are prone to cracking, mostly at the joint between the shaft and the bracket; this has led to swelling and subsequent spalling of concrete. In addition, concrete around the door compartment will break away leaving large holes around the door, thus representing a source of danger from the electrical components housed in the base compartments of the columns.

The poor condition of the lighting units contributes to a lowering of the aesthetic appearance of some of the Authority’s streets contributing to the residents having less pride in their areas with the consequential effect of increasing vandalism, other crime and accidents. This represents a failure to meet service objectives.

The Authority has continued to maintain its stock and has also maintained the inventory which has resulted in some growth. The age and stock profile of the Authority’s lighting column inventory (standard and heritage columns and high masts) is presented in **Table 3** below.

Age	Concrete	Steel	Other	Total	Profile
0-10 years	0	6,342	83	6,425	35%
11-20 years	0	2,547	13	2,560	14%
20-30 years	591	486	2	1,079	6%
30+ years	1,738	2,005	4	3,747	21%
40+ years	3,014	1,279	1	4,294	24%
Total	5,343	12,659	103	18,105	100%

Table 3: Analysis of age and structure of Street Light Columns

2.2.8 - Performance Management

Since the development of the Outlined Business Case in 2007 there have been a number of changes to the performance management of the Street Lighting Service. There is no longer a National requirement to report on the following Best Value Performance Indicators:

- BVPI 98 - Percentage of street lights not working as planned
- BVPI 215a - Average time to repair a street lamp (days) LA controlled only
- BVPI 215b - Average time to repair a street lamp (days) DNO controlled only

The majority of these indicators continue to be reported at a local level, however they have been developed over recent years to reflect changes to the Service and National Standards. Table 4 indicates the change to the percentage of street lighting outages since 2006/07 to 2010/11.

Indicator Description	2006/07	2007/08	2008/09	2009/10	2010/11 *
Percentage of Street Lighting Outages	1.45%	1.32%	1.26%	2.73%	2.62%

Table 4 illustrates the deterioration in performance of the street lighting stock over the past half a decade. * Average outage percentage between April 2010 - January 2011

Historically the Authority has not quantified the performance of its illuminated signs and bollards. However PS2 performance measure, taken from the payment mechanism will incorporate all illuminated apparatus.

As a result the Authority commissioned its street lighting service to carry out a bulk lamp change and number all illuminated signs within the borough, in order to obtain accurate performance data around the signs and bollards in time for contract award and Service Commencement.

As illustrated in Table 4 the average outage performance is 98% in line with the agreed starting point for PS2 performance target.

2.3 Scope of the Project

The scope of the project since the original Expression of Interest has remained unchanged. In order to address the Authority’s deteriorating lighting stock and to comply with the European lighting standards it is proposed that 11,883 columns and 47 high masts to be replaced. In addition there is also 1 system of subway lighting and 4 wall mounted lights as well as 1,767 illuminated signs, 2,644 non illuminated signs will require replacement within the CIP.

2.4 Options

2.4.1 – Investment Options

A number of investment options were examined as part of the OBC review to improve the contribution that the street lighting service makes to key corporate strategies and objectives.

The OBC review was based on best practice options appraisal guidance from the Local Partnerships and included an analysis of the following options, summarised in Table 1.

Option	Description
Do Nothing	No renewal programme and only reactive maintenance of existing stock
Do Minimum	Introduce additional investment to seek to sustain the delivery of the current service in the medium term
Partial Replacement	Introduce investment to replace 50% of the infrastructure needing replacement

Fast Track Replacement	A fast track investment for replacement of non compliant stock within 5 years to bring the whole of the lighting infrastructure up to modern day standards
Full Replacement	Replacement of the entire stock within a 5 year period.

Table 1: Option Outlines

From this evaluation, the fast track option was the most attractive solution as it achieved the highest BCR and also the highest non-financial benefits, compared with other options. The NPV of the economic benefits from reductions in crime and RTA's for this option was £185.252 m. The BCR achieved is 10.00. In this option all lighting columns and illuminated signs, bollards and beacons currently at the end of their useful life, are replaced and modernised to the EN 13201, within the CIP period of the PFI contract.

The Authority has continued to assess NPV of the economic benefits from reductions in crime and RTA's for this option using the anticipated cost of investment. The NPV economic benefits are currently £158.851m and the BCR achieved from this investment is 8.95.

This option will now ensure that all apparatus covered within the scope of the contract will be replaced as part of the CIP. The other changes that affect the BCR calculation from that of the OBC are:

- There has been a reduction in the percentage of columns.
- The capital value has reduced to reflect the reduction in columns.
- There has been a reduction in the benefits accruing from crime as the authority has undertaken considerable work to reduce crime.
- Overall these changes have reduced the BCR to this project but the investment still offers considerable benefits.

2.4.2 Procurement Options

Having identified a preferred investment option, the Authority undertook an evaluation of a range of procurement options that could most effectively deliver this investment programme.

The procurement options considered include:

- Joint local authority venture
- leasing arrangement
- PFI provision and
- conventional prudential borrowing procurement route

Each procurement option was reviewed against a set of project delivery/benefit realisation criteria to assess the most effective procurement method using a consistent evaluation framework as follows:

- Ability to attract investment in the lighting and traffic sign infrastructure

- Ensuring a rapid project implementation and early delivery of benefits
- Providing a robust project delivery and benefits realisation solution
- Achieving a fundable, affordable, bankable project delivery solution
- Incurring reasonable procurement costs
- Providing effective risk management/risk transfer and
- Compatibility with current Local Authority Capital Finance Regulations

The analysis concludes that the PFI delivery approach achieves the best match with project criteria.

2.5 Risk

An assessment of project risks and likely risk transfer under the PFI procurement option was undertaken at OBC stage by the Authority and their advisors.

Throughout project development and the negotiations during competitive dialogue the ultimate aim of the Authority was to transfer those risks that the private sector is best placed to effectively manage. Risk management was therefore an important focus of competitive dialogue with all Bidders.

The Authority has negotiated a position so that it only retains those risks which it is able to manage more cost effectively than the new SP, for example where risk is only transferable at a premium cost. Risk has been shared, where the Authority and the new SP can mitigate risk more effectively by working together.

An example of this is the decision taken by Knowsley to retain the procurement of energy in house as it was considered that the Authority could achieve more competitive unit costs. The Authority has undertaken sensitivity analysis on the effects of energy price inflation and accepts the usual PFI convention that energy price risk is retained by the Authority. The new SP will assume consumption risk in accordance with their forecast energy consumption received as part of their successful bid.

Furthermore, the Authority has negotiated a cost share position with the bidders with regard to its closed Merseyside Pension Funds scheme, which will be fully funded upon transfer.

2.6 Assumptions

The Authority identified a number of key assumptions at an early stage throughout the procurement process. The high level assumptions are listed below:

- i) A robust and affordable technical solution relies upon the availability and accuracy of a comprehensive inventory data and the service requirements must be absolutely clear to bidders.

- ii) The project must remain within the overall affordability envelope both in terms of the DfT annuity funding levels and the amount the Authority can afford. The Authority agreed the affordability parameters and as part of the affordability strategy did not release this information to bidders.
- iii) The procurement shall be conducted under competitive dialogue rules and competition must be maintained on a fair and equitable basis.
- iv) The project shall, where possible, use standard form documentation and adhere to the SLPP guidance.
- v) Commercial sensitivity between bidders shall be maintained at all times.
- vi) The project requires good governance, good project management and adequate resources, including external advice to achieve its objectives.
- vii) The street lighting budget must be ring-fenced and increased by 2.5 % per year.
- viii) The standards of service and its performance must be maintained.
- ix) The business must be able to embrace the changes and be ready to do so upon Service Commencement, i.e., any required policy changes must be approved and in place.

All of these dependency issues have been addressed and the competitive dialogue process has ensured that when the Authority issued the Call for Final Tender the service requirements were clear.

3.0 Financial Issues and Affordability

3.1 Purpose

In developing its OBC the Authority undertook a detailed and comprehensive financial, non-financial and economic analysis of a range of service investment options in order to demonstrate that the level of investment proposed is justified in terms of its overall benefits to the economy.

The ratio of benefits to costs is assessed by the completion of Appraisal Summary Tables (ASTs) in accordance with guidance published in the Methodology for Multi Modal Studies.

This section also looks at the affordability of the project and the Authority's commitment to fund the obligations.

3.2 Economic Options

Each of the service delivery options set out in **Paragraph** 2.4 above was evaluated on a range of criteria set out in **Paragraph** 3.3 below. The 'Do Nothing' option was not considered further as it did not address any of the key weaknesses identified in existing service provision, nor was it considered capable of achieving any of the service improvements being sought in the proposed scheme and would therefore prevent the Authority from meeting its statutory and strategic obligations.

3.3 Economic Option Appraisal

A financial, non-financial and economic option appraisal was undertaken based on best practise options appraisal guidance from DfT and Local Partnerships.

Financial models were developed for the four investment options (options 2 to 5 identified in **Table** 1) based on likely indicative costs. The models covered service expenditure at current costs (excluding inflation) plus an allowance for optimism bias over 25-year concession period, discounted using a 3.5% real discounted rate to a net present value to facilitate a straightforward financial comparison between the four options.

The non-financial evaluation was carried out by the Project Team on the basis of an assessment of the contribution that each of the options would make to the minimum service delivery criteria. The higher the score, the better the performance of that option against the minimum service delivery criteria. Each option was appraised against the following project objectives:

- i). The provision of relevant lighting levels and signage standards throughout the Borough
- ii). The provision of a safe, sustainable and high quality public lighting infrastructure
- iii). The achievement of better VfM / compliance with Best Value
- iv). Improving the contribution the service makes to the Authority's corporate aims, strategic and operational service objectives and
- v). The achievement of the above objectives in a short time-scale

The overall evaluation can be found below in **Table 5**:

(All NPV's at 3.5% real)	Unit	Do Minimum	Partial Replacement	Fast Track	Full Replacement
Total costs (excluding risk) – NPV	£'	41.310	49.243	58.181	62.041
Existing columns replaced in first 5 years ; (10 years Full Replacement)	No's	404	8,127	16,254	21,855
New columns installed in first 5 years (uplift); (10 years Full Replacement)	No's	0	948	1,895	1,895
Capital cost (NPV)	£'m	0.452	12.212	24.425	31.828
Non financial benefits scores	Max 50	9	23	45	27
Road traffic accident benefits (NPV)	£'m	2.152	43.259	86.094	86.094
Crime Benefits (NPV)	£'m	2.478	49.823	99.158	99.158
Total Benefits (NPV)	£'m	4.631	93.082	185.252	185.252
Column Replacement Cost (NPV)	£'m	1.651	10.620	18.523	28.750
Benefit Cost Ratio at 20% reduction		2.80	8.76	10.00	6.44

Table 5: Financial and Non Financial Evaluation

3.4 Benefits Identification

The Authority acknowledges the project will deliver a considerable number of benefits which link to corporate and national policy. In order to measure the realisation of these risks a benefits realisation plan has been developed. The plan outlines the intermediate and end benefits along with the relevant owner and estimated date of realisation. The benefits plan will be owned by the project board and managed by the Directorates 'Performance Management' team, in which the plan will be reviewed annually and reported against quarterly.

In summary the key benefits the Authority expect to realise are outlined below;

3.4.1 - Road Safety

Nationally, there is evidence that good modern street lighting can reduce night-time road accidents by up to 30% (source – Institution of Lighting Engineers, also TRL reports 586 and 929).

The Authority estimate that Road Traffic Accidents (RTAs) would reduce by approximately 20% in each area where the lighting infrastructure has been upgraded if the accelerated replacement option was implemented. This approach reflects the research undertaken on the relationship between lighting and RTA. The latest analysis of cost benefit ratios of reduced night-time accidents is contained in the DfT's Highway Economic Note No.1 2001 (Valuation of the Benefits of Prevention of Road Accidents and Casualties). This document indicates that the average cost of night-time accidents on urban roads is £77,704 at 2002 prices. This figure includes lost output, medical and ambulance costs, human costs, police and insurance administration costs and damage to property.

3.4.2 - Safety in the Community – Crime and Fear of Crime

A review of the available research indicates that improved street lighting does make an important contribution to reducing crime as part of a crime reduction strategy. All available studies have shown that improved lighting leads to reductions in crime, with an overall [20%] reduction in crime in experimental areas compared with control areas. The conclusions showed that improved lighting should be included as one element of a situational crime reduction programme. It is an inclusive intervention benefiting the whole of a neighbourhood and leads to an increase in perceived public safety. Improved street lighting is also associated with greater use of public space and neighbourhood streets by the community.

It is recognised that for many residents their perception and/or fear of crime is actually greater than their actual experience of crime. Understanding what actually contributes to this reassurance gap and addressing it appropriately is an important facet of any crime reduction programme.

Improved street lighting in Knowsley would make a tangible contribution to the crime reduction work being undertaken within the Borough. In particular it would positively assist in tackling key crime risks facing the borough at this time, namely theft from motor vehicles and anti social behaviour, both of which are widespread but adversely affect some of our most disadvantaged communities, undermine community confidence and lead to an increased fear of crime.

3.4.3 – Economy

Improved lighting is seen as beneficial in terms of the stimulation it brings to the night-time economy and promoting safety in the community. The benefits in terms of reduction in the fear of crime and of crime itself are explored above. It will also have a beneficial effect in job creation. The Institute of Criminology's research in Dudley and Stoke-on-Trent also suggested that re-lighting areas had a marked effect on change in street use after dark. In Dudley and Stoke, the numbers of female pedestrians out at night have increased by 28% and 70% respectively. It is likely that the increase in night-time street use will have a positive impact on the local retail and entertainment economy.

3.4.4 – Accessibility

Good quality lighting has particular benefit to pedestrians, cyclists, motor cyclists and equestrians in enabling them to see the way ahead, and to be seen themselves by other road users. The changes in amenity and the numbers affected are rated as high and, although no new routes are being offered, there may well be a very significant increase in the use of existing ones.

Good lighting improves access to public transport. Whereas the guidance is written on the assumption that new routes are being appraised, improved lighting would have a positive effect on public transport usage in the hours of darkness, particularly for those with any form of vision impairment. No community severance would be brought about by virtue of these proposals indeed it may reduce community severance by providing safe well lit routes between different parts of the community.

3.5 Value for Money (assessment against HM Treasury Guidance)

The Authority has assessed the likelihood to the project to deliver VfM in accordance with the 'Stage 3 – Procurement Level Assessment' guidance issued by HM Treasury during November 2006.

The guidance stipulates that once the Authority has entered into the formal procurement stage, VfM should be assessed in relation to a series of ongoing 'checks' which take the form of a qualitative evaluation. These 'checks' involve an assessment of the following main drivers;

- The Quality of the Competition
- Risk Sharing
- Stability of Costs
- Financial Flexibility

3.5.1 Stability of Costs

The procurement process has successfully managed to maintain the competitive pressure on both Bidders at Final Tender stage. The Authority's Project Team and its external financial and technical advisers developed a suite of financial proformae, issued to Bidders, to ensure that the Solution proposed by Bidders was sufficiently transparent to enable the Authority to have an understanding of the detailed costs underpinning the price and that Solutions could be evaluated against suitable cost benchmarks. It was a mandatory condition in the procurement process, including Final Tender stage that bidders had to complete these financial proformae.

The robustness of the underlying costs, as submitted by Bidders in the financial proformae, was reviewed and evaluated by the Authority's technical evaluation team by assessing credibility and reasonableness, based on their knowledge and market intelligence of the street lighting sector, as well as consistency with the respective technical Solution proposed by each Bidder. This exercise formed a key part of the evaluation process and informed a significant part of the technical and financial

discussions which took place with Bidders during the dialogue phase. The Authority successfully utilised competitive tension throughout the procurement process to maintain pressure on the Bidders to further reduce their costs without the Authority taking back transferred risk. However, the Authority is aware that although the banking sector is beginning to show signs of stabilisation, further increases to funding rates and terms prior to financial close remains a key risk to the project. The Authority will continue to explore opportunities through fine tuning to further decrease the price of the Solution without the Authority taking back transferred risk.

Prior to commencement of the procurement stage, the Authority set an efficient procurement timetable against which it has regularly measured its performance against key milestones in the timetable. This assists the Authority in ensuring that its procurement budget (to support internal and external advisor costs) which has been set aside for this Project is not exceeded. To date, some slippage in the project has been experienced resulting in a need to re-negotiate contracts with external advisers leading to increased costs..

The Authority has ensured that all costs within financial models were prepared on a transparent and consistent basis using a number of assumptions. These assumptions were based on the most accurate information currently available to the Authority. However, the Authority is aware that changes in these underlying assumptions could occur prior to financial close of the contract. Therefore, a range of sensitivities are undertaken on a selection of these assumptions to assess the potential impact on the costs of the project.

3.5.1.1 Indexation

An appropriate indexation arrangement, based on RPIx, to take account of inflation/deflation will be adopted for this contract. An agreed allowance for Indexation has been made between the authority and the SP to mitigate against rising costs that have occurred due to project delay whilst ongoing financial support from the DfT was guaranteed. The increased cost to the project have been shared between the authority i.e. use of headroom budget, and the SP through a 0.6% reduction in returns to its equity holder. There is no impact on the available annuity funding to be provided by DfT.

3.5.1.2 Changes / Variations

The Authority has negotiated appropriate payment variations with the new SP to deal with any future variations to the level of lighting stock. There is a procedure to deal with the accrual and de-accrual of apparatus.

3.5.1.3 Refinancing

The appropriate provisions outlined in recent SoPC guidance and included in the SLPP model contract with respect to refinancing are adhered to.

3.5.1.4 Taxation

The taxation treatment reflects the market approach to street lighting PFI schemes and will be consistent with the approach taken on all schemes in this sector (composite

trader). Whilst tax treatment is a SP risk, the Authority will evaluate and review the validity of the tax treatment.

3.5.2 Financial Flexibility

Following the submission of the Final Tender documents the Authority was satisfied that the remaining bidders were well qualified and continuously expressed strong interest in the project which ultimately satisfied the Authority that the competitive tension had been maintained.

The Authority is confident that the PFI negotiated contract with Tay Valley Lighting will deliver the proposed risk and is achievable given the assessment of the competition, the dialogue, the evaluation conducted and the Authority's own constraints. The Authority is therefore assured that the VfM drivers having been preserved and as such the contract will provide the overall benefits required.

The SP is financing its funding requirement for the Project through fixed rate bank debt. This provides the Authority with more certainty in relation to Unitary Charge payments as the Unitary Charge will not change with movements in interest rates over the life of the Contract. Bank debt is also considered to be a more flexible means of accommodating changes to the Project than other forms of finance such as bond finance. As part of the procurement process, the Authority has assessed the financial strength of the new SP to ensure that there is sufficient flexibility in the financial structure during circumstances of new SP distress. Based on the evaluation undertaken on behalf of Local Partnerships at the PQQ stage of the Project, the lead organisations from the new SP were assessed as having a strong credit rating which would help support the robustness of the Solution. A parent company guarantee is being provided by Scottish & Southern Electric in respect of the new SP obligations under the Contract as well as the injection of subordinated debt used to repay the equity bridge loan.

The SP confirmed in its final tender submission that it has secured commitment from one lender, Lloyds TSB Plc who has confirmed their support for the project and to the funding terms. The new SP intends to secure the all the senior debt required through the bank.

The SP's Senior Lender require that the SPV maintain certain cover ratios (a safety measure which ensures the Project can pay the interest and principal on the senior debt requirement) and have the right to step in and manage the contract if specified ratios are broken. The cover ratios required by the SP's Senior Lender are considered to be consistent with other project financed deals in the Street Lighting PFI sector. Whilst the PFI brings the Authority long-term (25-year) certainty over the street lighting service provision, the Project still retains sufficient flexibility to meet variations to the Authority's requirements throughout the life of the Contract. To facilitate efficient management of the contract, reduce costs, and ensure continued delivery of services, the Contract provides a robust and flexible mechanism for dealing with Authority requests for (low, medium and high value) variations to the Service through Schedule 16 (Change Protocol). The mechanism clearly defines the responsibilities of the Senior Lenders, imposes fixed timescales for different levels of variation and penalises the SP for not adhering to these timescales (through abatement to the Unitary Charge). The Authority has agreed with the SP the values/rates applied in respect of variations to Service e.g. accruals and de-accruals, Schedule of Rates.

3.6 Affordability

3.6.1 Budget Profile

The Authority has identified the budget requirement based on the priced bids received at CFT. The analysis recognises financial obligations throughout the long term PFI contract and in particular where the costs are sensitive to risk in terms of inflation, interest rates or energy costs.

3.6.2 Project Affordability

The Authority has met the commitment it made when submitting the OBC to maintain and increase the current budget available to street lighting in addition to the annuity grant support provided by the DfT. The Authority's Cabinet approved this support on 18th April 2007. Members were made aware that any changes in the base assumptions will influence the contribution level required.

The Council further demonstrated its support for the project by earmarking £1m in additional contribution over the lifecycle of the project when it set its 2009/10 budget.

Affordability has been a significant issue for the Council. It has been clear that it would be difficult to deliver the scope of this project within the affordability envelope. Therefore, much effort has been made by the authority to review all costs within the project to deliver an affordable project within the scope. This includes continuous affordability assessment tests and ongoing dialogue throughout the procurement with the DfT.

3.6.3 Funding Arrangements

The structure being proposed is based on a commonly used approach in the Street Lighting PFI Market (as well as the wider PFI market) and is considered deliverable.

3.6.4 Balance Sheet and Accounting Treatment Opinion

The authority has reviewed the HMT guidance and the criteria set out under IFRIC 12 have been considered. The project has been assessed under the two control tests of the asset:

- Does the authority control or regulate what services the operator must provide with the property, to whom it must provide them, and at what price?
- Does the authority control, through ownership, beneficial entitlement or otherwise, any significant residual interest in the property at the end of the term of the agreement?

In both cases the Authority meets the criteria and, therefore, under IFRIC 12 the project would be considered to be on balance sheet.

3.7 Continuous Efficiency Savings

Given that the Government is currently engaged in a deficit reduction plan, the Authority is aware of the recently published paper by Infrastructure UK (IUK) to assist Private Finance Initiative (PFI) contract managers to identify and implement savings measures that will reduce costs while maintaining frontline services.

Given that VfM is a key rationale for the use of PFI contracts, the Authority recognises that it is therefore crucial to consider cost benefit issues relating to risk register and the whole life effects (in terms of cost and quality) of any changes to the project.

In summary the Authority understands that the guidance identifies:

- Enabling measures which should be implemented before amending a contract such as:
 - o Optimise contract management
 - o Optimise asset management and use
 - o Consider the costs and benefits of changing the contract
 - o If contract changes are likely to be required, agree suitable cost transparency measures and variation protocol
 - o Share / benchmark / obtain cost information

- Savings which should be explored by Authorities on a project-specific basis, such as:
 - o Review service scope & standards
 - o Introduce value testing
 - o Co-ordinate value testing processes
 - o Take back PFI provider's share of general change in law capital cost risk
 - o Smarter energy procurement and consumption /user behaviour

- Initiatives being explored centrally for industry –wide implementation:
 - o Voluntary Code of Conduct
 - o Investigating insurance efficiencies
 - o Pilot project and revisions to draft guidance

- The importance for protecting VfM.

The Authority will await the outcome of the work by IUK and Cabinet office, and subsequently amended guidance, and will continue to seek opportunities to achieve efficiencies within the contract without negatively affecting the VfM expected from contract.

4.0 Procurement Process and Competition

4.1 Purpose

On the 25th March 2008, the project manager attended the Treasury along with colleagues from the Department for Transport to meet with the Governments' Project Review Group (PRG).

Following a meeting in March 2008 the Department for Transport (DfT) and Project Review Group (PRG) endorsed the Knowsley Street Lighting and Traffic Sign project as being eligible for the allocation of PFI credits and ready to enter into procurement. On the 6th May 2008 the Transport Minister Rosie Winterton announced the allocation of £30.157m credits with no conditions attached.

Since then the procurement has progressed under EU regulations (Competitive Dialogue) and using standard documentation contained in the Local Partnership (formerly Local Partnerships) Street Lighting Procurement Pack and the Standardisation of PFI Contracts version 4 (sopc4)

Six potential bidders had already pre-qualified through the 4p's PQQ process. Four bidders were issued the Invitation to Submit Outline Solutions (ISOS). Following the issue of ISOS Knowsley received confirmation from four out of the five remaining bidders indicating that they would proceed with the ISOS stage and submitted their tenders to Knowsley Council on the 19th June 2008. However shortly after this submission one of the Bidders withdrew from the procurement process due to the availability of resources and current workload.

The evaluation of the bidders' outline solutions was undertaken by expert teams within the project and overseen by an evaluation steering group. As a result all three bidders who submitted outline solutions were invited to submit detailed solutions in 13th August 2008.

On submission of the detailed solutions on the 18th November 2008, all work-streams independently issued a series of outbound clarifications to bidders to aid their understanding of the proposals allowing them to thoroughly evaluate each bid against pre-determined criteria, which did not include solution price.

On completion of this evaluation David Webster Limited was deselected from the process, leaving both Community Partnership Lighting and Tay Valley Lighting consortiums' as the remaining bidders.

Detailed negotiations followed to resolve all substantive issues assess how affordable the remaining bids were in comparison to the Authority's affordability envelope and establish an affordable position with both bidders.

The level of clarifications during this period provides significant evidence of the robustness of the Authority's process of managing Competitive Dialogue and of a thorough approach to the evaluation of the solutions. The Authority remained extremely

focused upon closing down as many issues as possible before seeking permission to close dialogue.

During February 2010 the Authority submitted an interim business case and a list of derogations to the standard form of contract (SOPC4) for both Bidders to DfT. On the 9th April Knowsley's Street Lighting and Traffic Sign PFI project derogations were supported by DfT and Partnership UK and with those assurances in place the procurement process progressed to the next stage.

Bidders were sent the Instruction and Guidance to Bidders (IGB) for the Invitation to Submit Final Tender Bids on the 16th April 2010.

On the 13th May 2010 the Authority received final solutions back from both Bidders for evaluation by the team. The internal Business Adviser informed the project team that two affordable bids had been submitted under the terms of the IGB and so both bids were fully evaluated by joint teams drawn from appropriate areas of expertise. Some clarifications were sought from both bidders and the responses to those clarifications were taken into account in the evaluation.

The Project Board and Team developed a transparent and robust evaluation framework and methodology which had been used throughout the procurement stages and issued to all team members. Unlike previous stages where only the qualitative score was taken into account, the final stage included the application of cost. The Final Tender stage evaluation period commenced on 14th May 2010 and was completed on 4th June 2010. It is important to note that Qualitative and Quantitative evaluation was conducted entirely independently.

In total, four specialist subject areas and the applied percentage were identified for evaluation. The Evaluation Review Groups undertook the qualitative evaluation and completed an initial appraisal of each Solution for their relevant area. This stage also identified points that required clarification or discussion with Bidders. Each Evaluation Review Group identified its provisional score by applying the agreed criteria and weightings.

The results of the qualitative evaluation of each of the technical, legal and financial elements together with the price of the relevant Final Solution were assessed by the Joint Working Group. The Joint Working Group also awarded scores for the overall integrity of the Solutions involved. As a final consideration JWG then applied the prices submitted in order to assess the most Economically Advantageous Ratio (EAR) to 4 decimal points.

Following a thorough evaluation of final tender submissions Cabinet approved the appointment of Tay Valley Lighting as the SP on 7th July 2010 subject to the approval of HM Treasury credits which was received on 4th January 2011.

The derogations were approved by PUK and the DfT prior to close of dialogue and publication of the Authority's Call for Final Tender on 16th April 2010. As at the date of Final Business Case the new SP had not raised any new derogations.

TVL's bid falls within the Authority's affordability criteria and within the PFI credits provisionally allocated by the DfT.

DfT approval is now sought for this Final Business Case by 11th March 2011 in order that Financial and Commercial Close can be achieved on the 20th April 2011 with Service Commencement to follow mobilisation in 1st August 2011.

5.0 Contract and Payment Mechanism

5.1 Purpose

The purpose of section 5.0 outlines the commercial principles affecting the procurement; how they have been addressed and the position on key commercial issues.

The Authority has used standard documentation wherever possible whether derived from the Standardisation of PFI Contracts Version 4 (SoPC4) or the Local Partnerships Street Lighting Procurement pack.

5.2 Output Specification

The Authority set out an Output Specification within its OBC and is pleased that this has, apart from minor amendments to suit specific Bidder requirements for ease of operation, remained consistent and unchanged throughout the procurement of the project. The Output Specification refers to a number of Method Statements, which set out TVL's methods and procedures for the delivery of the Service in relation to those elements of the Service to which they relate. These Method Statements are contained in Schedule 5 of the Project Agreement (PA).

At OBC the Authority proactively declared its aspiration to minimise energy consumption and subsequent carbon emissions by specifying a full remote monitoring and variable lighting system for the project. This requirement was met with some concerns by the Bidders, however, the Authority is pleased that it has been able to agree and develop this requirement with each of the bidders to provide a full remote monitoring and variable lighting system which will allow the illuminated apparatus to be fully monitored and actively controlled with lighting levels adjusted according to need so reducing energy consumption and helping to future proof the installation.

5.3 Procurement Strategy

The procurement has been conducted strictly in compliance with European Union procurement regulations. This has involved a competitive dialogue process where by the Authority entered into a comprehensive series of high level, technical and non-technical dialogue sessions with the relevant Bidders throughout the procurement process up to the close of dialogue. The dialogue also involved a significant volume of clarifications issued from and responded to both the Authority and the individual Bidders. Furthermore, the Borough Treasurer took the decision that the Authority's affordability gap as calculated in the OBC would not be declared to bidders. As a result of the dialogue the Authority has achieved an affordable solution with no reduction in scope.

5.4 Commercial Negotiations and Derogations Table / Risk Allocation and Transfer

The project agreement is based on the Local Partnerships SLPP Model Contract and SoPC Version 4 (issued in March 2007) and developed in accordance with HM Treasury and Local Partnerships guidance.

The Authority has proceeded on the basis that the Local Partnerships SLPP Model Contract will be mandatory drafting, and that all material changes to this form have been formally approved by the DfT as derogations.

5.5 Payment Mechanism

The Payment Mechanism will be based on a Unitary Charge for the delivery of the service, and payments to the new SP will vary according to agreed performance standards. The Authority's objectives in developing the Payment Mechanism for this project have been to:

- Incentivise the SP to deliver required service standards;
- Be bankable whilst at the same time only requiring the Authority to pay for the level of performance actually delivered; and,
- Reflect sound commercial principles i.e. performance standards are clear, simple, cost effective and measurable.

The Authority used the standard form Payment Mechanism and developed a project specific version to reflect the technical aspects of the project, such as Remote Monitoring System, not covered in the standard form. The Payment Mechanism is aligned to the Output Specification and has had input from the Authority's external financial advisor and external technical advisor. The Payment Mechanism has been negotiated with the new SP, and both the Authority and the SP are comfortable that the position agreed meets the objectives set out above.

5.6 Human Resource Issues

With the introduction of the PFI contract and changes to the way in which the Authority delivers the service, a requirement exists for the Authority to consult with staff that will be affected by any TUPE.

Various consultation sessions have been carried out by the Authority with the staff, Trade Unions and Human Resources to inform and consult on the progress of the PFI Project. The Authority in conjunction with the SP has developed a consultation plan which will involve further joint communication meetings with all the relevant parties in order to facilitate the smooth transfer of staff to the new SP.

Given that TUPE applies the project team have ensured all terms and conditions transfer over with the employee, including fully funded pension scheme with the existing Pension Fund.

6.0 Project Management, Contract Management and Performance Monitoring

6.1 Introduction and Objectives

The Authority has followed the project management plan set out in the OBC, and in line with guidance in the Local Partnerships street lighting procurement pack. There have been some alterations to the indicative timetable experienced as expected during the course of conditions and a protracted and complex procurement process to accommodate exceptional market pressures, such as the credit crunch, on both the Authority and Bidders.

6.2 Project Governance, Organisation and Roles

The Authority has recognised that effective governance and strong project management is essential for successful project delivery. A governance structure relating to the project procurement and business change elements was drawn up. This is underpinned by a set of roles and responsibilities of each tier within the governance structure.

In addition the Authority did appoint external advisers in the areas of expertise required to progress with a complex procurement project and also made provision to retain these key resources until the award of contract. A small contingency budget will be set aside for the contract management team to utilise, to draw on key resources, if required, during the mobilisation period and during the first year of the CIP.

Information and experience has been gained from Local Partnerships and other Authority's whose projects are in procurement or in the operational phase. The Authority has also sought to seek advice from both DfT and Local Partnerships and other authorities throughout the bidding and procurement process. The Project Manager has attended the Project Directors Development Programme whilst representative from the project team have attended most of the Network Group meetings hosted by Local Partnerships and other authorities and has been subject to Local Partnerships gateway reviews at stage 2 and stage 3. The Project Manager has also attended the Gateway review training and undertaken gateway reviews on behalf of Local Partnerships and other authorities on other PFI street lighting projects that were in the procurement phase.

Throughout the procurement, the Authority has conducted business with bidders on a fair and equitable basis. All information, save where specifically agreed as being commercially sensitive, has been shared with all bidders in the competition.

6.3 Project Scope

The project scope as outlined in the OBC has been managed by the Project Manager on a day to day basis and directed by the Project Board. The Project Scope has been

reviewed to ensure that both the contract outcomes are achieved and that the business is able to embrace the changes upon commencement of service.

6.4 Project Meetings and Reporting

The Street Lighting and Traffic Sign project established a robust meeting schedule based on the identified work-streams set out in the governance structure outlined in section 6.2. The project board has been responsible for base-lining all plans and then setting the required tolerances for the project manager to work within. The project manager has been responsible for delegating tolerances to the work-stream leads.

Work stream leads have reported to the project manager on a weekly basis and a board meeting has been held monthly for the project manager to report progress against plans and raise any emerging issues for board resolution. Ad hoc board meetings have been established when tolerances have been set to exceed.

Key political decisions have been made by Cabinet and have been included on the forward plan to ensure that approval is granted in a timely manner. In particular the Authority noted that under competitive dialogue all significant political decisions on scope and affordability were made before the dialogue closed and, whilst the remaining bidders were still in competition.

6.5 Project Management Strategy

6.5.1 Planning & Activities

Project planning has been governed by a number of strategies within the project environment and has included more than just the scheduling of activity. In order to achieve the project delivery outcomes the project board have been required to understand the level of activity needed. The board have also needed to address the level of resource required to conduct the activity, the associated risks and the stakeholder management requirement. Once the plans were base lined they were implemented and monitored as outlined in section 6.4. The next stage plans were developed alongside the current implementation plan to ensure effective transition from one stage to the next.

The project team defined the key milestones for the project and scheduled the key activities required to deliver each stage for each work-stream. This also shows the resource level required for delivery and the target start and end date. All dependency issues relating to activity has been established and monitored by the project team to ensure effective progress is being made.

6.5.2 Resources (HR and Financial)

The resource schedules have been agreed for each stage following the development of the activity schedule and have been base-lined by board along with the budget profile required for delivery. The resource schedules include the internal and external resources including those which require commissioning, such as the External advisers for technical, legal and financial.

6.5.3 Stakeholder Management Strategy

The objectives of the stakeholder management strategy within the project have been to:

- Ensure stakeholders are identified and defined clearly;
- Proactively manage the stakeholder engagement and communication process;
- Maintain engagements and communications within realistic boundaries of scope and value whilst identifying their wider impact;
- Ensure engagements and communications are tracked and resourced and achievements are properly identified and recognised;
- Provide alignment and clear links between the Street Lighting and Traffic Sign project, and its work-streams.

A stakeholder management focus group has been established through out the procurement process and generally meets to review the objectives outlined above.

A robust communications plan has been developed at each stage of the process following the scheduling of activity and the stakeholder assessment and has been agreed at board level. This plan has been updated on a regular basis as the project develops. Extensive consultation with a wide range of stakeholders including Elected Members, Council Services, and the Authority's Partner Organisations has been undertaken and will continue beyond the end of the procurement process.

Consultation with Knowsley residents, businesses, and the general public has been achieved through press statements in the 'Liverpool Echo' and 'Knowsley News' the Authority's free newspaper delivered to all local households.

A further robust consultation with a range of stakeholders including residents and local businesses will continue up to and beyond contract start. This will be managed jointly with the new SP.

6.5.4 Risk Management Strategy

The project approach to risk management has ensured that:

- risk management is embedded within the organisation;
- the highest possible integrity for services provided by the Authority;

- there is an ability to deliver Authority objectives/policies; and Government legislation in a timely, efficient and effective manner;
- the effectiveness and efficiency of all resources is deployed by the Authority to deliver Best Value services through the application of sound risk management principles;
- the Authority safeguards assets - people, financial and property and reduce the cost of loss;
- an environment where all staff will assume responsibility for managing risk is created;
- the Authority can appropriately deal with risk at strategic, operational and project levels by taking appropriate mitigating actions and exploiting opportunities.

Both the identification and ownership of strategic and operational risks are collated and then managed by the project manager and board who agree the mitigating controls and monitor progress to ensure that risk management is effective. All strategic risks are reported to the corporate risk management team on a quarterly basis.

6.5.5 Benefit Management Strategy

The benefit management strategy ensures that:

- benefits are identified and defined clearly, and linked to strategic outcomes;
- partner organisations are committed to the identified benefits and their realisation;
- the benefit process is proactively managed;
- benefits are realised, tracked and resourced and achievements are properly identified and recognised;
- the impacts of any dis-benefits are minimised.

The benefit realization plan will be agreed with the contract management team as part of the mobilisation period and handed over at service commencement.

6.6 Contract Management Approach

Knowsley Borough Council fully endorses the Local Partnership guidance to contract management and has established a structure that will effectively administer and manage the contract. The PFI contract team is part of the wider highways contracts team managing all the Authority's civil engineering and highways contract functions. The PFI contract management unit will have two dedicated officers, a contract manager and a technical administrator both reporting to the highways contract manager. Further support will be sought from other experts across the Authority as and when required, for example communications and customer services.

The highways contract manager along with 2 dedicated PFI Contract officers will focus on the following:

- Managing service performance
- Monitoring and administrating the contract
- Managing the relationships

Technical, engineering and lighting expertise is being retained under a contractual partnering arrangement with the joint venture design consultancy (JVC), 2020 Knowsley as and when required during the Core Investment Period (CIP) and remaining contract period. Technical support for compliance with the Output Specification and Design has been budgeted for as part of the client management function.

The Authority has also made provision for technical support from its JVC post CIP to cover ongoing technical services and market testing at a level relevant to the proposed future works of the PFI provider. It is understood this will be an ongoing requirement although at an appreciably lower level than during the construction phase of the CIP.

The PFI contract manager is already in post and both this officer and resource from the JVC technical support have been involved throughout the procurement stages of the project and more recently during the fine tuning process. As a result these officers are well placed to take this experience forward into the operational contract phase of the PFI. The officers understanding of the contract documentation, the negotiations and the new SP methodologies will help facilitate the transition from the current internal delivery arrangements to the new PFI contractual environment and will provide ongoing continuity for the Local Authority. The project manager will also remain in post during the mobilisation to ensure that an effective handover takes place prior to service commencement.

The Authority hopes to utilise the role of the Independent Certifier alongside its technical support budget to maximise the performance of the PFI provider and ensure that all aspects of the construction and performance standards are rigorously monitored. The Authority intends to maximise its resources in relation to checking the PFI provider over and above the new SPs obligations to report under the Output Specification and Payment Mechanism. It is envisioned the contract team will play a large part in this alongside the Authority's other highways and street works resource being utilised on an informal basis as required.

The Authority has invested in the contract management team to ensure that the right skills and competencies are in place for the operational phase. Additionally a robust training schedule is being developed further to ensure on going training and support is given to the team.

The Authority is committed to working in partnership with the Service Provider to ensure consultation is focused and effective in contributing to the Service delivery objectives. To allow full partnership working, the creation of three (3) boards: a Partnership Board, a Contract Management Board and an Operational Management Board. These shall be made up of representatives from the Authority and the Service Provider.

6.7 Implementation of the Contract

6.7.1 Mobilisation Plan

Following the Contract Award the Authority has allowed 12 weeks for mobilisation. During this period the new SP will recruit and train staff, design schemes, refine the works programme and establish the depot. The SP has provided a detailed mobilisation plan which acknowledges the timescales required to undertake the specific task involved including the back office requirements which can often take as long to establish as the on site operational issues.

The contract management team will continue to work closely with the new SP during the mobilisation period to monitor the mobilisation works whilst supporting the development and implementation of the required business change elements of the project to ensure an effective transition of services during this period.

During the mobilisation period the contract management team will continue to work with advisors in order to transfer knowledge of the key documents and undertake scenario testing prior to service commencement.

6.7.2 Performance Monitoring

The Authority acknowledges that one of the main activities placed upon the contract management team is assessing the performance of the new SP against that set out in the output specification and method statements. Managing service performance is a fundamental to the contract, as it is through this process that payments to the SP are calculated and any deductions are negotiated and agreed.

The monthly performance monitoring and payment process will involve the new SP self-monitoring the level of compliance achieved that month which is then communicated to the Authority via a monthly report to the agreed level of detail and timescales. As part of the contract management function the Authority will ensure that a robust and documented procedure is put in place to validate the level of deductions in order to ensure the Authority only pay for the level of service received.

In order to validate the performance there is a requirement in the contract for the Authority's contract management team to have 'real time' access to the new SP's 'Management Information System' on a 'read-only' basis. This will allow the team to track customer requests and interrogate the new SP's compliance with the contract requirements, as well as facilitating the reporting process.

Following the receipt of the monthly report the contract management team and the new SP will hold a monthly monitoring meeting in order to negotiate and agree the performance levels which will finalise the level of deductions.

6.7.3 Contract Administration

The contract manager has spent the last few months narrating the schedules in order to identify the obligations placed on the new SP and the Authority. The contract manager has also used this time to cross reference other key documents, namely the pay mechanism and the output specification, to establish the key processes and principles and the key requirements for the operational phase. This will support the production of the Operational Contract Manual to facilitate the transition period between the procurement phase and the operational phase and the subsequent transition between contract managers over the life of the contract.

6.7.4 Managing Relationships

The Authority acknowledges the importance of good partnership working in achieving long term success in PFI projects. In order to build these relationships the contract manager and the new SP's operations manager are involved in the procurement process and will continue to build this relationship during immobilisation and transition.

To enhance relationships further the Authority will develop and agree with the new SP a set of partnership protocols as advised in the 4P's contract management guidance prior to service commencement. The Authority will also facilitate a joint workshop with the new SP to communicate the following:

- Roles and responsibilities
- Governance and reporting structures
- Issue resolution
- Performance
- Expectations and aspiration

The establishment of the operational boards will also support the management of relationships at all levels within and across both the contract and operational management structures.

The Authority has significant experience in partnering arrangements and has drawn on these experiences to learn lessons and develop a partnering ethos. Examples of these partnerships include:

- Joint Venture Design Consultancy
- Lift
- Building Schools for the Future
- Knowsley Housing Trust