

Challenging the way energy projects are funded in the public sector

WHITE PAPER

2015

Written and distributed by **Carbon Minded** on behalf of Brighton University's **Green Growth Platform**

Version 7.0

This page is intentionally blank

CONTENTS

- 1. INTRODUCTION 3
- 2. FUNDING OF PUBLIC SECTOR PROJECTS..... 4
- 3. WHAT HAS HAPPENED TO ENERGY EFFICIENCY FUNDING? 7
- 4. WHAT SHOULD THE PUBLIC SECTOR DO THEN? 8
- 5. COMMERCIAL INVEST TO SAVE - A POTENTIAL SOLUTION 9
- 6. LIGHTING AS AN EXAMPLE 10
- 7. CONTRACTED OUT ESTATE 12
- 8. PROCURE A PILOT STUDY 13
- 9. CONCLUSIONS..... 14

1. INTRODUCTION

ENERGY IS ONE OF THE LARGEST CONTROLLABLE OVERHEADS IN MANY PUBLIC SECTOR BUILDINGS SO THERE ARE MANY OPPORTUNITIES TO MAKE SAVINGS.

Reducing energy costs is one of the key tasks of public sector energy managers and this has traditionally been done by monitoring billing data and achieving the best price for energy through active engagement with buying groups to achieve economies of scale. However, besides the simple management of costs public sector energy managers have long known that investing in newer, more reliable, and more efficient equipment, such as new lighting, as well as staff training, can yield significant energy savings over the short, medium and long term.

2. FUNDING OF PUBLIC SECTOR PROJECTS

THE MAIN GOAL SHOULD BE TO REDUCE CARBON EMISSIONS AND ENERGY CONSUMPTION IN THE SHORTEST TIME POSSIBLE.

Current funding models

The go to option for the public sector in the past was to utilise **internal funding** from capital budgets to provide a long term roll out of projects within the estate over a period of 5-to-10 years in line with an internal asset management plan.

However, the last few years have not been kind to local authority budgets and the Institute for Fiscal Studies has stated that the spending power of local authorities in England was cut substantially during the last parliament. With local authorities' spending per person cut by 23.4% in real terms between 2009–10 and 2014–15, using a comparable definition of net spending on services

over time by single-tier and county councils.

The size of cuts varied markedly across the country – Westminster saw a cut of 46.3%, while North East Lincolnshire experienced a cut of 6.2%. On the whole, more deprived areas and those that saw faster population growth have seen larger cuts.

Further cuts planned for 2015–16 will generally be focused on the same local authorities that have lost over the last five years. For example, London boroughs face cuts of 6.3% on average next year compared with 1.9% cuts faced by shire counties. Without a change in policy, any

Local authorities' spending per person cut by 23.4% in real terms between 2009–10 and 2014–15

Institute for Fiscal Studies

further cuts over the next parliament are also likely to affect the same places again.

The alternative approach when investment was not available from the capital budget was to utilise **Prudential Borrowing**. As a whole the

OPTIONS FOR FINANCE

There have traditionally been three options for financing energy efficiency projects in the public sector:

- Internal Funding including a capital works budget
- Prudential borrowing
- Salix Financing

The public sector needs to think more creatively about how to fund energy efficiency works if projects are to be developed and local authority and other assets are to be upgraded and improved.

public sector has access to some of the most cost-effective borrowing available. New freedoms and flexibilities for local authorities were introduced with the introduction of the Local Government Act 2003. The ability of local authorities to borrow to invest in capital works and assets was one of the many new powers allowed - provided that borrowing was affordable and in line with principles set out in a professional Prudential Code.

This ability to borrow to invest should have led to a revolution in energy efficiency projects over the past decade. Although some local authorities have been making use of prudential borrowing others have not been as keen to invest and there is a great variation existing between authorities in the amounts invested and the purpose to which it has been put.

It is suggested that one reason for this is that authorities are required by

regulation to have regard to the Prudential Code, which CIPFA updated in 2011.

The objectives of the Prudential Code are to ensure that the capital investment plans are affordable, prudent and sustainable and that treasury management decisions are taken in accordance with good professional practice.

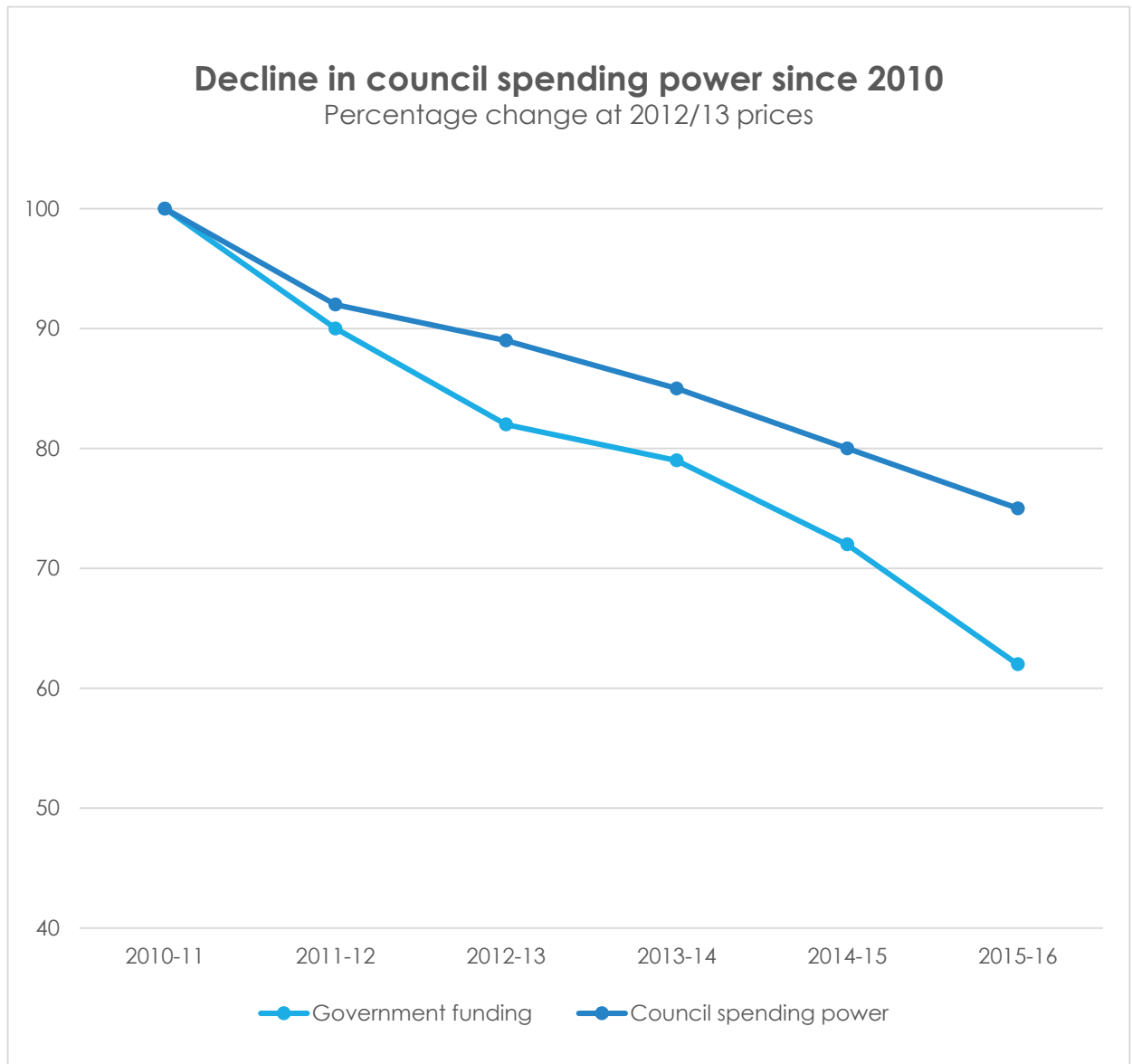
The Prudential Code sets out a number of indicators which authorities must use to support decision making.

In essence, public sector bodies need to assess what total borrowing through prudential borrowing is sustainable.

This requirement to view energy efficiency investments from prudential borrowing within the overall spending framework undoubtedly means that spending cuts over the past 5 years have impacted the ability of the public sector to invest in energy efficiency projects, even if the projects are sound long term revenue.

Some of the public sector have turned to alternative funding mechanisms such as the **SALIX** finance scheme that was launched back in 2004. Salix is a Dept. of Education/DECC backed scheme focused on reducing energy and carbon in the public sector, schools and other associated organisations. Over the past 10 years, SALIX has delivered £375m worth of investment via 13,000 projects saving 7.5m tonnes of CO2 and delivering a £1bn net financial benefit to the public sector.

That being said, Salix is not without its issues. Although Salix finance is a free service it is related to fixed paybacks on projects – some projects are worthwhile but may not fit the strict criteria of the Salix fund. In addition the amount that can be borrowed is typically lower than that required to deliver a wholesale project to a large estate.



3. WHAT HAS HAPPENED TO ENERGY EFFICIENCY FUNDING?

IN LIGHT OF THE CUTS TO THE PUBLIC SECTOR, WHAT HAS HAPPENED TO THE ENERGY EFFICIENCY AGENDA?

So with the current financing of the public sector in mind, what has happened to energy efficiency projects?

Anecdotal evidence suggests that over the last 5 years the number of public sector energy efficiency projects have reduced as priorities are focused elsewhere.

It would appear that more glamorous projects are competing for the funding available, resulting in energy efficiency projects regularly missing out. There is also a longer term trend of energy efficiency projects being rolled up, tacked on to, or absorbed into more grandiose generation

projects such as solar PV. The result of these trends is that the benefits from a focused energy efficiency deployment are lost in programmes that drag on for many years. In some cases the energy efficiency projects are never realised as cost overruns tend to sacrifice the non-core elements of the project.

Timelines

This challenge in extended timelines is a frustration for public sector energy managers. They know that investing in energy efficiency projects will yield a significant annual saving that is undoubtedly cost effective, but they will not have the capital budget to roll

out a significant programme in a reasonable amount of time. This has led to the public sector either not upgrading because budgets do not allow such investment, or they are attempted in a piecemeal fashion over a long period of time from current (much reduced) maintenance budgets, thereby reducing significantly the cost savings that can be made.

4. WHAT SHOULD THE PUBLIC SECTOR DO THEN?

EXPLORING AN ALTERNATIVE APPROACH.

If the public sector wish to overcome their funding issues to deploy more energy efficiency works and benefit from early energy savings, then alternative solutions should be sought.

The crux of the matter is that deploying energy efficiency works early has a fourfold benefit to the public sector. Firstly, it brings immediate financial benefits from a reduction in energy and maintenance costs. Secondly, it hedges against the increasing cost of energy inflation, thirdly it brings an immediate decrease in CO2 emissions. Thirdly, it brings an immediate upgrade to the public sector estate and has the potential to increase work locally for residents.

The most cost-effective way in which an immediate upgrade could be done is to utilise internal budgets for a full and comprehensive upgrade to the public sector estate. As noted however, public sector budgets have been squeezed dramatically over the past few years and that is not usually possible. The second best option is to utilise prudential borrowing to again roll out a large comprehensive programme of upgrade works.

If neither of these two options are available then the public sector should seriously consider the alternative option of a commercial **invest to save** scheme as an alternative to a piecemeal

deployment and a replacement to stalled works.

This is suggested over a long term internal programme, even if that is funded through prudential borrowing, as the reality is that long term public sector projects are vulnerable to political changes, future budget cuts of programme staff, future budget cuts in capital works, and a possibility of reaching borrowing limits over the long term. The main benefit of a commercial invest to save scheme is that the funding is not dependent on public sector budgets and the programme can be deployed immediately.

5. COMMERCIAL INVEST TO SAVE - A POTENTIAL SOLUTION

CAN A COMMERCIAL INVEST TO SAVE SOLUTION REALLY BE A GOOD THING FOR THE PUBLIC SECTOR?

A commercial invest to save scheme is in many ways similar to the Salix finance scheme noted above, but delivered by a commercial entity, whereby the contractor provides both the energy efficiency solution and the associated finance to fully fund the project without any capital outlay from the client.

In return, the client agrees to a **share of the savings** from both the maintenance and the energy cost reduction.

The term of such agreements is dependent on the savings of each individual project and they typically range from 4 to 7 years.

What are the actual benefits to the public sector?

The benefits to the client are that the energy efficiency works are completed in one single programme over a short period providing both an upgrade in infrastructure and immediate energy and carbon savings. The contractor will also usually agree to maintain the energy efficiency solution over the term of the agreement. At the end of the term the contractor will normally gift the solution to the client or transfer for a nominal charge.

The deployment of an invest to save scheme will also be cost-effective on internal resources. The contractor will usually provide free surveys and

manage the works. If a prudential or other borrowing schemes were deployed instead, these extra expenses would need to be costed separately.

The most notable benefit is that the financial savings are immediate and are greater over the short and long term than from a piecemeal rollout.

6. LIGHTING AS AN EXAMPLE

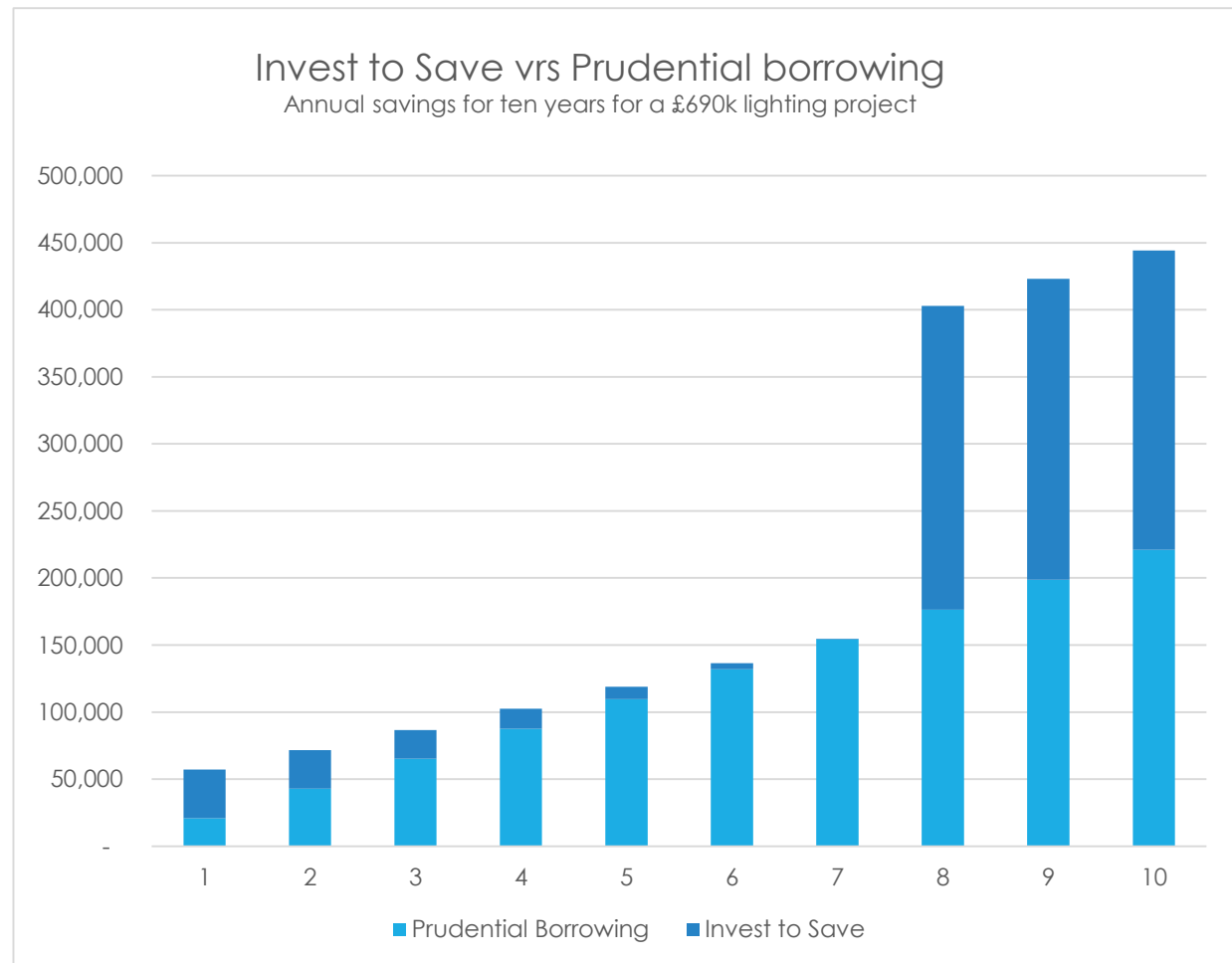
LOOKING AT AN EXAMPLE OF LIGHTING PROJECTS.

On the assumption that a large scale rollout cannot be completed because of internal budgeting issues, let's compare a lighting upgrade scheme utilising prudential borrowing and a commercial invest to save scheme.

In this example let's say that small local authority has identified £690k worth of lighting upgrades to LED's, and that the usual option would be to roll out around 10% of the total every year until the estate has been fully upgraded.

Let's further assume that the energy and maintenance savings on this new LED lighting is around £286k per year.

The two options mean that either £69k of works are completed by the local authority, funded by prudential



borrowing at say 2.5% over 7 years, or £690k of works installed and funded by a commercial entity, with the local authority gaining 20% of these agreed savings for 7 years. In the first example, the local authority would have around £28.6k worth of energy savings in the first year, but would be required to repay prudential borrowing around £7.9k per year, which yields a net benefit of £20.7k. At first look this appears to be a good option for the local authority, but when this is compared with the invest to save scheme, the difference is stark. As the invest to save scheme will have deployed £690k worth of works, the annual savings in energy and maintenance will be ten-times that of the alternative piecemeal approach. This results in savings of £286k per year with the 20% of savings going to the local authority totalling around £57.2k,

giving a net benefit in the first year of £36.5k in favour of the invest to save scheme. In the long term, utilising the invest to save scheme over the prudential borrowing route would yield a net benefit of around £790k (over ten years) and would not be subject to any political turbulence or risks from budget cuts.

**£790k net benefit
to local authorities
from utilising Invest
to save scheme**

Over ten years

7. CONTRACTED OUT ESTATE

HOW SHOULD A LOCAL AUTHORITY DEAL WITH THEIR CONTRACTED OUT ESTATE?

An alternative issue that most public sector bodies face is that their buildings service and maintenance may have been contracted out to an external contractor on a short or long term maintenance contract. The details and scope of these outsourcing agreements vary throughout the country but most have some element that requires the contractor to comply with the environmental agenda of the local authority. They will usually say something along the lines of:

The Contractor shall ensure that it complies, and that any sub-contractors comply, with all Legislation, industry codes

of practice and standards (and where no standards exist, best industry standards) related to care of the environment and sustainability in its performance of the Services. As a signatory to the Nottingham Declaration on Climate Change, the Employer is committed to reducing its carbon footprint, increasing recycling, energy efficiency and water conservation and reducing waste to landfill. The Employer accordingly shall expect the Contractor to support its aims and objectives in this regard.

The problem is that the income that contractors derive is through maintenance, which includes the refitting of lighting and other parts throughout the length of the contract. If LED lights are fitted then the maintenance role is reduced and may impact both on the number of employees working for the contractor and their associated payments for refitting lights through the year.

An alternative issue is that it may be mandated within the contract for the maintenance team to improve lights or other systems as they go along. This model means that they will fit the cheapest system they can whilst meeting the targets in the contract.

8. PROCURE A PILOT STUDY

THE MAIN GOAL SHOULD BE TO REDUCE CARBON EMISSIONS AND ENERGY CONSUMPTION IN THE SHORTEST TIME POSSIBLE.

If the public sector is to benefit from the commercial funding that is available and release its self from the binds of ever reducing budgets and more demands on services, then it must take the responsibility to consider new innovate funding mechanisms that deliver substantial operational savings.

That being said, a problem that may be encountered internally is the scepticism of a contracted out project from either building managers or facilities management companies.

The scepticism may not be confined to the financial model but also to working with organisations that the public sector may not have engaged with in the past.

To overcome this barrier, it is suggested that the public sector trial a project, such as lighting, to test the model for them in a realistic situation.

In procuring the pilot project, it is worth noting that the public sector should still get best value and comply with all the relevant EU procurement rules around new suppliers and capital works.

It is also suggested that the easiest way in which to procure a pilot project is to keep the pilot under £50,000 and utilise (as most of the public sector would do) the Written Quotation Procurement Route which usually requires the officer in charge requesting three quotes from appropriate suppliers.

In completing the three quotes option the officer should bear in mind this new approach of “commercial Invest to save” is unlikely to be an offering available from existing traditional suppliers and they need to seek out new suppliers for this new approach.

9. CONCLUSIONS

IN SUMMARY - WHAT CAN THE INDEPENDENT INVEST TO SAVE PROJECT DO FOR THE PUBLIC SECTOR?

Notwithstanding the strains on public sector resources, there are alternative options on funding available to complete energy efficiency works.

The public sector can utilise the invest to save models of external contractors to secure more savings more quickly.

These funding models have the potential to increase the amount of energy efficiency works completed within the public sector, without increasing their overall debt burden. In essence invest to save can fill the gap between a long term inefficient roll out of efficiency projects and not doing any projects at all.

These solutions aim to break the inertia of energy efficiency projects, with the

contractor making an investment from their own balance sheet, to allow the public sector to utilise large capital projects across the estate in one “Big Bang” thereby accruing the benefits immediately without having to invest their own capital.

The logic of these models is to eliminate the funding element while still delivering substantial immediate savings without delay.

If the public sector embraces invest to save they will see the following potential benefits:

1. Delivering the savings across 100% of the estate in year 1 rather than over 10 years or more;

2. Gain immediate access to an alternative funding source to complement existing sources;
3. Gain immediate cash flow through the mutual savings - generating 20% of the saving immediately and then consistently each quarter;
4. Deliver new high quality energy efficiency projects with stakeholders;
5. Hedge against future energy price increases.