

HAMBLETON DISTRICT COUNCIL

Report To: Cabinet
11 December 2012

Subject: PUBLIC LIGHTING ENERGY SAVING INITIATIVES

All Wards
Portfolio Holder for Corporate Services: Councillor B Phillips

1.0 PURPOSE AND BACKGROUND :

1.1 This report seeks consideration of public lighting energy saving initiatives in conjunction with forthcoming works to be undertaken by North Yorkshire County Council (NYCC) on the roads network lighting system.

1.2 It proposes a joint approach with the County Council to save energy on the District's public lighting.

2.0 DECISIONS SOUGHT :

2.1 Cabinet is asked to approve work, in conjunction with NYCC, to undertake a joint exercise during 2013 / 2014 implementing a part nighting programme for the District Council's public lighting system within budget allocations identified within the Council's ten year capital programme and in accordance with the Council's energy and carbon savings strategy.

3.0 THE PROPOSED SCHEME :

3.1 The District and County lighting systems are closely integrated in terms of coverage (see Annex A). There are over 10,000 street lights serving the road, footway and cycleway networks across the district of Hambleton. Over 4,000 are owned by the District Council and approximately 6,000 owned by NYCC.

3.2 NYCC are underway with phase 1 of a four year Street Lighting Energy Reduction programme with a target of achieving 60% of the lighting units being converted to being either switched off or dimmed between midnight and 5am, termed respectively "part nighting" or "dimming". The bulk of the work involves part nighting which is currently being implemented at Harrogate, Knaresborough and Scarborough. The phase 2 works at Hambleton and Richmondshire are programmed to be undertaken between May 2013 and March 2014. (See Annex B for anticipated programme)

3.3 If the District Council wants to also implement energy savings initiatives for its lighting system there is potential for joint risk assessments, consultations exercise and coordinated works implementation programme incorporating agreed apportioned shared consultation costs. (See Annex C for sample publicity brochure)

3.4 The process would involve risk assessments from NY Police on local crime statistics and criminal behaviour and NYCC Road Safety section on night time accident records plus operative and legislative requirements. Consultations on proposals would involve Parish Councils and District Members and the general public prior to the commencement of implementation works. Finally a post-implementation review will be undertaken.

- 3.5 NYCC policy states that part nighting should not be considered at ; accident record zones , such as areas on the high risk site and high risk routes and where street lighting has previously been installed as an accident reduction measure; conflict zones, such as roundabouts, traffic signal junctions, major junctions, right-turn lanes, pedestrian crossings etc; continuous high traffic flows areas such as at the location of hospitals; areas of high crime where lighting has been installed specifically to reduce crime or the fear of crime including locations covered by CCTV operations.
- 3.6 NYCC consider locations where part nighting operations could be considered include residential areas, car parks, certain long stretches of bypasses and main/minor traffic routes where accident risk is minimal, industrial estates, footpaths and cycleways.
- 3.7 Analysis undertaken by both NYCC and HDC confirms that at present the most cost effective method of undertaking energy savings is by replacing the existing dusk till dawn photo cells with part night photo cells. During the summer the lights would come on at dusk and switch off at approximately 12.45am and remain off for the remainder of the night. During the winter months the lights would come on at dusk and then off at approximately midnight then on again at 5.30am and switch off again at dawn.

4.0 LINK TO CORPORATE PRIORITIES :

- 4.1 The proposals meet targets set in the Councils Carbon Management Plan of 2009 in reduction of the Council's carbon footprint.
- 4.2 The scheme aligns with endeavours for improved efficiencies in the reduction of annual revenue costs based on relative short terms of returns on investment.

5.0 RISK ASSESSMENT :

- 5.1 There are no risks in approving the recommendation.
- 5.2 **Risk in not approving the recommendation**

Risk	Implication	Prob*	Imp*	Total	Preventative action
1. The Council would not achieve cost savings, energy and carbon reduction targets	The efficiencies identified in the carbon management plan would need to be sourced from other areas	5	2	10	Identify other Council activities where commensurate cost and carbon savings could be made
2. The community would be left with a two tier standard of lighting system which would lead to feeling of inequality and resentment.	Different areas of a town or village would be left with differing standards of lighting during the early hours.	5	3	15	Agree a coordinated publicity campaign with stakeholders to explain reasons behind a two tier standard.

Prob = Probability, Imp = Impact, Score range is Low = 1, High = 5

6.0 SUSTAINABILITY IMPLICATIONS :

- 6.1 In the event of achieving 60% installation of part night cell the anticipated reduction in annual carbon emissions is estimated at some 170 tonnes of CO².

7.0 FINANCIAL IMPLICATIONS AND EFFICIENCIES :

- 7.1 The current annual electric energy costs for running the District Council's public lighting system totals some £110,000. The majority of lamps consume 70W or less with an average annual energy cost of £26.92 per unit.
- 7.2 Hambleton have a total of 4,086 lights To install part night switching to 60% of the system would cost approximately £98,000 resulting in annual energy savings of £24,500 on the existing budget of £110,000 with a pay back period of approximately 4.5 years. The anticipated joint consultation costs including the publication and distribution of brochures, website works and other ancillary costs are anticipated to be in the order of £2,000.
- 7.3 a) Capital allocations for this project are identified within the Council's ten year programme (£120,000, 17 April 2012 Cabinet) and also within the Council's Carbon Management Plan (£50,900, CMP 2009)

<u>CAPITAL EXPENDITURE</u>	2013/14	2014/15	2015/16	2016/17
	£	£	£	£
Part-nighting works	98,000	0	0	0
Joint consultation costs	2,000			
Financed by:				
Capital Programme:	100,000	0	0	0
Total Capital Cost	<u>100,000</u>	<u>0</u>	<u>0</u>	<u>0</u>

- b) There will be electricity savings made on the energy budgets from the time of approvals from the electricity company on the revised Council inventory submission containing the new fitted part night cells.

<u>REVENUE EFFECTS</u>	2013/14	2014/15	2015/16	2016/17
	£	£	£	£
Energy Savings	<u>7,000</u>	<u>24,500</u>	<u>24,500</u>	<u>24,500</u>

8.0 LEGAL / INSURANCE IMPLICATIONS :

- 8.1 A local authority has a power, not a duty, to provide and maintain street lighting.
- 8.2 Whilst street lighting has several community benefits there is no overriding duty on local authorities to keep lit lighting systems it owns and operates in order to prevent crime.
- 8.3 A local authority may be challenged if it removed a system of street lighting or failed to maintain one in operation, if it cannot demonstrate that the reason for which the system of lighting was installed was no longer applicable. However, provided a Council takes a reasonable, risk-based approach to determining its lighting policy the legal risk should be minimal.

8.4 The District Councils' insurance agents Marsh Ltd "confirm that provided that the council take all assessment precautions and follow the process which NYCC have outlined in order to involve the police and review hot spots and crime areas, etc, cover will be provided as per the standard terms, conditions and exclusions of our policy."

9.0 SECTION 17 CRIME AND DISORDER ACT 1998 :

9.1 As described in item 3.4, close consultations on proposals will be made with North Yorkshire Police and Community Safety regarding crime risk assessment.

10.0 EQUALITY / DIVERSITY ISSUES :

10.1 None recognised if scheme is equitable undertaken alongside NYCC implementations.

11.0 RECOMMENDATIONS:

10.1 It is recommended that approval is given to progress a joint consultation exercise with NYCC and subsequently implement an energy savings exercise for both NYCC and HDC street lighting systems throughout the District at an anticipated capital cost for HDC of £100,000.

MARTYN RICHARDS

Background papers: None
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Public Lighting split between HDC - NYCC

	HDC	NYCC
Ainderby Quernhow	8	0
Ainderby Steeple	22	4
Aiskew & Leeming Bar	59	306
Aldwark & Flawith	8	0
Alne	39	5
Appleton Wiske	37	12
Bagby	0	1
Battersby	10	0
Battersby Junction	14	0
Bedale	154	213
Bilsdale Midcable	30	0
Borrowby	28	5
Brafferton	12	7
Brandsby cum Stearby	2	0
Brompton	98	93
Burneston	20	10
Burril with Cowling	15	0
Carlton	0	1
Carlton Husthwaite	9	1
Carlton Miniott	5	108
Carthorpe	21	0
Cowesby	6	0
Coxwold	17	0
Crakehall	68	11
Crathorne	1	20
Crayke	8	0
Dalton	49	32
Danby Wiske	28	0
Deighton	6	1
Easby	18	1
Easingwold	208	484
East Cowton	28	37
East Harlsey	21	0
East Rounton	0	1
Ellerbeck	7	0
Exelby, Leeming, Newton	45	14
Faceby	0	1
Fangdale Beck	2	0
Farlington	8	0
Flawith	4	0
Gatenby	2	19
Great & Little Broughton	18	112
Great Ayton	357	254
Great Busby	0	1

	HDC	NYCC
Great Fencote	10	0
Great Langton	12	1
Great Smeaton	4	27
Hackforth	21	0
Helperby	19	2
Hornby	11	1
Huby	64	27
Husthwaite	30	4
Hutton Rudby	85	91
Hutton Sessay	5	0
Ingleby Arncliffe	4	40
Ingleby Greenhow	16	0
Kepwick	4	0
Kilburn High & Low	8	0
Kildale	3	0
Kiplin	3	0
Kirby Sigston	1	0
Kirby Wiske	12	0
Kirkby Fleetham	30	10
Kirklington cum Upsland	24	0
Knayton with Brawith	22	0
Langthorne	10	0
Linton on Ouse	22	22
Little Smeaton	0	1
Londonderry	16	0
Lovesome Hill	1	0
Low Worsall	23	13
Maunby	8	0
Morton on Swale	25	36
Myton on Swale	7	0
Nether Silton	9	0
Newby	23	4
Newby Wiske	11	0
Newsham with Breckenbrough	0	1
Newton on Ouse	24	13
Northallerton	405	1,473
Nosterfield	11	0
Osgodby	0	1
Osmotherley	39	0
Oulston	8	0
Over Silton	6	0
Pickhill with Roxby	18	64
Potto	11	8
Raskelf	17	30

	HDC	NYCC
Romanby	134	344
Rudby	35	18
Sandhutton	13	0
Scruton	33	21
Seamer	29	15
Sessay	21	0
Shipton	38	64
Sinderby	7	0
Skipton on Swale	7	2
Snape with Thorpe	46	0
South Kilvington	17	15
South Otterington	26	10
Sowerby	224	90
Stillington	40	28
Stokesley	204	662
Streetlam	4	0
Sutton Howgrave	7	0
Sutton on the Forest	52	28
Sutton Under Whitestonecliffe	24	2
Swainby/Whorlton	14	83
Tame Bridge	21	5
Theakston	4	0
Thimbleby	7	0
Thirkleby High & Low	13	0
Thirn	5	0
Thirsk	150	250
Tholthorpe	7	3
Thormanby	8	4
Thornborough [West Tanfield]	8	0
Thornbrough [Thirsk]	0	0
Thornton Le Beans	11	12
Thornton Le Moor	29	4
Thornton Le Street	7	0
Thornton Watlass	20	3
Thrintoft	19	0
Tollerton	31	40
Topcliffe	21	53
Upsall	8	0
Warlaby	2	0
Welbury	15	7
Well	29	0
West Rounton	10	7
West Tanfield	33	12
Yafforth	12	2

NYCC Road Lighting Energy Savings Programme - Phase 2 Hambleton & Richmondshire

Potential NYCC Street Lighting Phase2 Part-nighting Programme 2012-2014 :-																							
Tasks	2012						2013						2014										
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M				
1. Hambleton lighting location surveys & drawings																							
2. Hambleton consultations (4 weeks rolling programme)																							
3. Hambleton part-nighting site works																							
4. Richmondshire lighting locations surveys & drawings																							
5. Richmondshire consultations (4 weeks rolling prog)																							
6. Richmondshire part-nighting site works																							

Saving money

The reduction in our street lighting energy consumption will help us to achieve an annual saving of almost £400,000. By reducing our carbon emissions we will also cut our street lighting carbon tax by 28%.

In addition to the savings 'sky glow' or light pollution will be significantly reduced, allowing a clearer view of the night sky.

When are we doing it?

Alterations to street lights will start from April 2012 and will be carried out over a four year period across the County.

What will be happening to the lights in your street?

Log on to www.northyorks.gov.uk/streetlighting where proposed alterations for villages and towns will be listed as they are agreed. You can also find technical explanations and more information about the scheme online. Alternatively, contact us on 0845 8727374.

Working together

The County Council will coordinate project teams for each parish in North Yorkshire to make sure that crime, disorder and road safety issues are considered before decisions are made. The project teams will include officers from the County Council, representatives from North Yorkshire Police, the Parish Council and the local County Councillor. District Councillors will also be involved where appropriate.

The County Council is encouraged by similar schemes that have been successfully completed in other areas of the country and feedback to date is generally supportive of this initiative.

For more information go to www.northyorks.gov.uk/streetlighting or call **0845 8727374**

Contact us

North Yorkshire County Council, County Hall, Northallerton, North Yorkshire, DL7 8AD

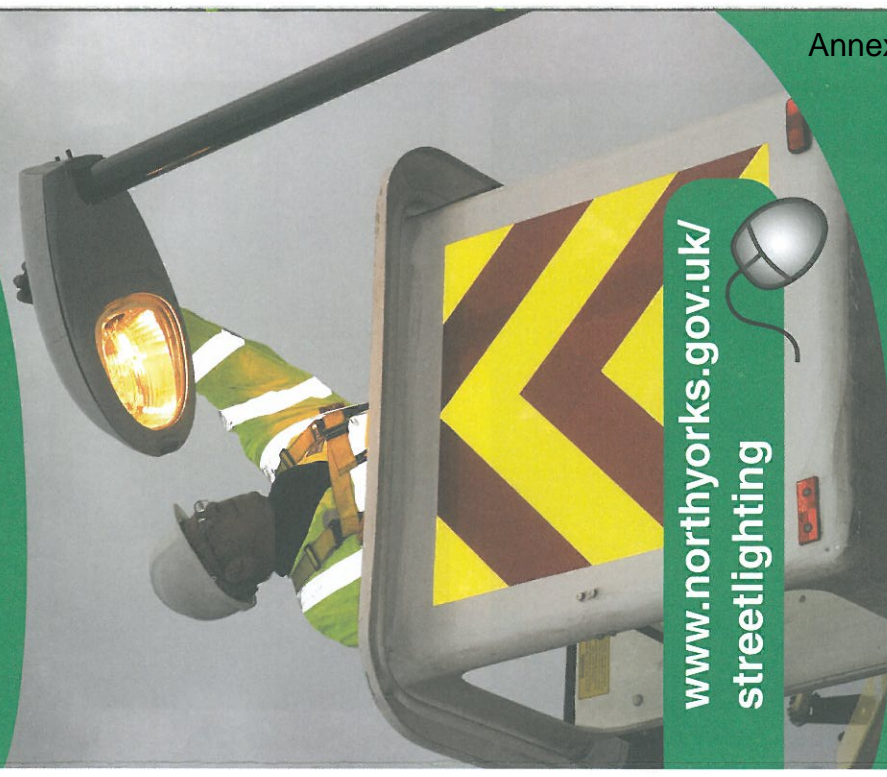
Our Customer Service Centre is open Monday to Friday 8.00am - 5.30pm (closed weekends and bank holidays). Tel: **0845 8727374** email: customer.services@northyorks.gov.uk Or visit our website at: www.northyorks.gov.uk

If you would like this information in another language or format such as Braille, large print or audio, please ask us. Tel: **01609 532917**

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Changes to street lighting in North Yorkshire



www.northyorks.gov.uk/streetlighting

What are we doing?

North Yorkshire County Council is changing its street lighting policy.

In April 2012 the County Council will introduce a street lighting energy reduction scheme. This will form part of our overall carbon reduction management programme aimed at making North Yorkshire greener.

There are three new options for street lighting across the County.

1 Part-night lighting

Street lights in North Yorkshire currently switch on at dusk and off at dawn. The new policy could see approximately 60% of our street lights switching off in the early hours of the morning, most likely between midnight and 5am, when road use is at a minimum.

2 Dimming

We plan to install dimming technology in some of our brighter lanterns. This will reduce the level of illumination when road use is at a minimum and at the same time reduce energy consumption by 15%. We expect that this will affect approximately 4% of our street lights.

3 Removal of street lighting

This will only take place in areas where road safety will not be compromised and is likely to affect less than 2% of the street lights in North Yorkshire.

Areas that will not be affected by these proposals include:

- those with high levels of night-time activity such as town centres;
- areas suffering from crime and antisocial behaviour;
- areas which suffer or have suffered from night-time road traffic accidents; and
- areas where road humps or other traffic calming measures are used.

Why are we doing it?

The aim of our street lighting energy reduction scheme is to reduce energy consumption and carbon emissions.

Saving carbon

30% of the UK's carbon emissions come from fossil-fuelled electricity generation. As a result, the Government has introduced a carbon tax for large private and public sector organisations called the 'Carbon Reduction Commitment' which is intended to encourage energy/carbon saving initiatives.

North Yorkshire County Council's annual carbon emissions total around 78,000 tonnes of which 16%, or 11,200 tonnes, comes from street lighting. We estimate that the changes described in this leaflet could save up to 3,000 tonnes of CO₂ per year (which is around 27% of our current street lighting carbon emissions). These emissions savings will help us to meet both the local and national emissions reduction targets.

Factfile:

- The County Council is responsible for nearly **50,000 street lights**.
- The street lights in the County consume **20 million kWh of energy** annually, which equates to **4830 kW of energy** every hour that the lights are on. This produces around **11,200 tonnes of CO₂** every year. This is the equivalent to the total annual energy use of **4,000 average North Yorkshire homes**.
- The annual cost of electricity for street lighting in 2010/11 was approximately **£1,600,000**.
- The cost to convert a street light to part-night lighting is between **£20** and **£30** which will be offset by the energy saving within three years.

