

## **STREET LIGHTING - SAVING ENERGY MONEY AND CARBON**

### Background

Wiltshire Council has over 40,000 streetlights. Most of these are on all night whether they are needed or not.

The Council needs to save money and reduce its carbon footprint by reducing energy usage. Rising energy costs, carbon tax and budget restraints make it necessary to change the way we light our streets.

### The Scheme

About half of the street lights will be converted to operate for part of the night. Generally they will be off between midnight and 5.30 am.

Lights at junctions, pedestrian crossings and where required for safety will remain on all night.

Where suitable the lighting levels of some street lights will be dimmed so they operate at lower output when traffic flows and pedestrian movements are reduced.

Lighting where there are CCTV systems, in town centres, and in areas where crime is a problem will remain on and at normal lighting levels.

A few lights may be removed permanently where they are no longer required.

The operation of the scheme will be monitored and changes will be made as necessary in the event of problems.

### Why the changes are needed

The Council's energy budget for street lighting is over £1.2 million, and energy costs will increase in the future, especially with the introduction of the carbon tax. Budgets are constrained and it is necessary for Council's to reduce expenditure.

Street lighting accounts for 12% of the Council's carbon footprint. The Council has an aspiration to reduce its carbon footprint and to achieve a 50% reduction by 2020.

Over 1,300 street lights have already been converted to part night lighting following the recent Area Board community based projects, and the Council has already converted its illuminated bollards to low energy units.

Other Councils have successfully implemented similar schemes without adverse impacts, and are making large savings.

### What happens next

Over the next twelve months alterations will be made to the lighting equipment to enable the lights to be individually controlled. The operation of the lighting will then be changed to operate as described above.

After six months the operation of the lighting will be reviewed and views of the relevant Town and Parish Councils will be sought before the Council considered whether any further changes are required.

## FREQUENTLY ASKED QUESTIONS

### 1. **When will lighting be turned off?**

Selected lighting units will be turned off from about midnight until 5.30 am. They will come back on at about 5.30 am if it is still dark. The times of operation may vary by a few minutes depending on the type of switching used. From dusk until midnight and on dark mornings after 5.30 am they will operate as usual. This is when our streets are busiest.

### 2. **What does dimming lights mean?**

Some of the more modern lighting units can have their power levels adjusted so that lighting levels can be reduced to more suitable levels when traffic flows are low or at off peak times. They can be turned up to full power when needed. The dimming saves energy.

### 3. **Which lights will be converted to operate for part of the night?**

An assessment will be undertaken of every area where the changes are proposed. Where necessary some lights will be left on all night.

The lights to be left on will generally be:-

- Main traffic routes with substantial pedestrian movements, or potential conflict areas such as junctions and roundabouts.
- Units near to minor residential road junctions
- Areas with above average night time pedestrian activity such as town centres or near 24 hour or early morning facilities.
- Areas with 24 hour operational emergency services sites such as hospitals and fire stations.
- Street lights near uncontrolled pedestrian crossings (zebra crossings or informal crossings) and within subways, stairways and ramps, enclosed footpaths and alleyways.
- Street lights close to potential hazards on the highway (such as roundabouts, central carriageway islands, build-outs and speed-humps).

### 4. **Which lights will be turned out permanently?**

A few lights which were installed many years ago are no longer required. Modern standards would not require lighting to be provided at these locations. These are generally in rural areas or in other locations where there are no houses fronting onto the roads, or where lighting levels exceed current standards.

**5. Why cannot all of the lights be dimmed instead of turned off?**

To dim a street light both the lamp in the lantern and the control gear that operates it needs to be capable of dimming. The majority of street lighting equipment is of an older generation and cannot be dimmed. The upgrading of large numbers of street lights is prohibitively expensive. Also dimmed lighting continues to consume energy and does not maximise energy savings.

**6. Could one in three lights be turned off permanently instead?**

The intention of the scheme is to develop a safe and sustainable method of reducing energy consumption. Turning off lights permanently would result in uneven lighting levels for all road users during the hours of darkness. It is considered that turning lights off for part of the night would have less adverse impact on the public and road users.

**7. Could the lighting have new technology such as motion sensing?**

Motion-sensing switches, such as those which operate security lights, have been considered, but most of the street lighting in use today requires a warm-up period of several minutes to reach full output and is not suitable for this type of switching. There are also concerns about potential uneven lighting for drivers and disturbance for residents.

**8. Could solar powered lighting be used instead?**

At present there are issues with the use of solar power for public street lighting. The cost of conversion, battery life and the number of panels required mean that costs are much higher than conventional units. In the future the technology may develop and it could become viable.

**9. Could LED lighting units be used instead?**

Converting all the existing lights to LED (Light Emitting Diode) lighting would be much more expensive, but on new developments and new lighting installations this type of lighting will be used where appropriate and cost effective.

**10. Can the Council legally turn off street lights?**

Yes. There is no statutory requirement on local authorities in the UK to provide street lighting. The Highways Act empowers local authorities to light roads but does not place a duty to do so. However, the Council does have a duty to ensure that lighting units are kept in safe condition.

**11. What about road safety?**

The lights at major junctions, roundabouts, pedestrian crossings and obstructions in the road will be kept on. These are the areas which would benefit most from being lit. All street lighting will be on at peak travel periods during the hours of darkness as at present. The accident data will continue to be monitored regularly, and if problem sites are identified changes to the lighting regimes will be made.

**12. What about crime?**

The lighting in town centres and any identified high crime areas will remain on. Where there is CCTV the lighting will also remain on as necessary. Wiltshire is a safe county, but it is appreciated that there is a fear of crime, and there are concerns that reducing street lighting could increase anti-social behaviour and vandalism at night. The situation will be monitored and where necessary changes will be made so that the lighting remains on at key sites where justified.

**13. What about cars parked on the street at night?**

The lights in residential areas where cars are likely to be parked over night are only likely to be turned off between midnight and 5.30 am when traffic flows are low. If you do park your vehicle over night on the road you should be aware of the Highway Code requirements, especially regarding not parking at night facing against the direction of traffic and displaying parking lights on roads with a speed limit greater than 30 mph. Please refer to the Highway Code for details.

**14. Will 30 mph speed limits be affected if lights are switched off?**

No. A 30 mph speed limit automatically applies to any road containing a system of street lights placed not more than 200 yards apart, unless signposted with a different speed limit. There is no current law stating that these lights have to be switched on all night to be applicable. Therefore, motorists should be aware that the usual 30 mph speed limits will apply.

**15. Will there be a reduction in my Council tax?**

No. The Council needs to reduce its spending and the money saved by the changes will help keep Council Tax down. Reducing expenditure on street lighting was an area identified for savings during the consultations on the Council's budget.

**16. Will my insurance premium go up?**

Councils do not have a statutory requirement to provide public lighting. All street lighting is in place to light areas of the highway as a duty of care to road users. Lighting is not provided to protect private properties. Street lighting within the vicinity of your property is not usually an element that insurance companies take into account when developing home insurance or property policies.

**17. If I become a victim of crime or have an accident can I claim against the Council?**

There is no statutory requirement for local authorities in the UK to provide public lighting and you are unlikely to be able to claim as a result of the proposed changes to the street lighting. If crime or safety does become an issue, changes will be made to the lighting in that area as necessary.

**18. What are other Councils doing?**

Many other authorities have introduced similar part night lighting schemes successfully, without adverse effects and have made significant savings. The proposed changes in Wiltshire are not as large as those some authorities have made, which have turned off lighting permanently. With rising energy costs and reduced budgets these types of changes to street lighting are becoming more common.

**19. What savings will this make?**

It is anticipated that savings of over £300,000 could be made annually at current energy prices. Even with moderate energy cost increases of 3% annually the proposals would be expected to save over £12 million over 25 years.

**20. Would Town and Parish Councils be able to pay to keep all the lighting on all night?**

Each case will be considered on its merits, but keeping the lights on would not help the Council meet its carbon reduction target, and will become increasingly expensive for the Councils in the future.

**21. Why haven't the Council written to every resident?**

It would cost a significant amount of money to write to every individual household in the county. Instead the Council has consulted with the Area Boards and Town and Parish Councils, and individuals were welcome to comment on the proposals.

**22. What consultation took place?**

The opportunity was provided for the views of the Police, other public bodies and those affected by the proposals to be considered. The consultation was announced at the Area Board meetings, and local Town and Parish Councils were invited to comment. The consultation documents were available on the Council's website, and this was announced in the August and September Parish Newsletters in 2012. The consultation received substantial local press coverage, including reports on a number of local radio stations. The results of the consultation were reported to the Cabinet before the decision was made.

**23. What was the result of the consultations?**

The consultation closed on 30 September 2012. There were 246 responses via the on-line questionnaire, and 18 by letter and e-mail. The majority of those responding were generally in favour of changes to the street lighting. In response to the on-line questionnaire 73.2% thought that many or some of the lights should be turned off permanently, 86.2% thought that many or some

should be turned off between midnight and 5.30 a.m., and 91.1% thought that many or some of the street lights should be dimmed. The responses not in favour of the proposals were mainly concerned about public safety issues.

**24. Were the Police and other organisations consulted?**

The Wiltshire Community Safety Partnership Executive Board, whose members include Wiltshire Police, Wiltshire Fire and Rescue Service, the Probation service, the Youth Offending Team and Wiltshire Council, considered the matter at their October meeting, and advised that they support the street lighting reduction proposed.

**25. When will it be implemented?**

The changes will be introduced during 2014 when the necessary alterations to the equipment will be made on an area by area basis.

**26. Can changes be made to the scheme after it is implemented?**

Yes. The Council will be introducing a central control system so that the majority of the county's street lights can be controlled remotely. This will allow alterations to the lighting to be made in response to circumstances. The scheme will be reviewed after six months and the views of the relevant Town and Parish Councils will be sought before considering whether any further changes to the operation of the street lighting are required.