SPORT ENGLAND

Improvement Fund
Project Proposals

Creating a sporting habit for life

TAUNTON VALE SPORTS CLUB: TAUNTON

Upgrading works due to commence in 2014

An outline of the project proposals supported through the Lottery Improvement Fund are set out below. These will be followed through to post completion to assess the benefits of the range of interventions, new products and technologies.

New features

Environmental improvements will include:

- Replacement of existing metal halide lighting with LED (light emitting diode) floodlighting to sports pitches
- Automatic booking system that optimised the brightness and switching of the floodlighting
- New LED lighting all indoor facilities.

New LED lighting throughout the clubhouse

Taunton Vale Sports Club is a valuable asset in the community that delivers hockey, cricket, netball, tennis and football to almost 1,500 members. The longevity of the club depends on increasing membership and reducing operating costs.

Sport England awarded the club £273,318 towards an overall budget of £485,130 to bring environmental and accessibility improvements and energy cost savings to the centre. The money, made available through Sport England's Improvement Fund, will be used to install LED floodlighting surrounding a newly upgraded artificial grass hockey pitch. The transition to LED lighting will also be made throughout the indoor sports centre and the clubhouse. These upgrades are anticipated to save £7,000 on energy costs for the club per annum.


LED floodlighting to be installed around hockey pitch

Bright future

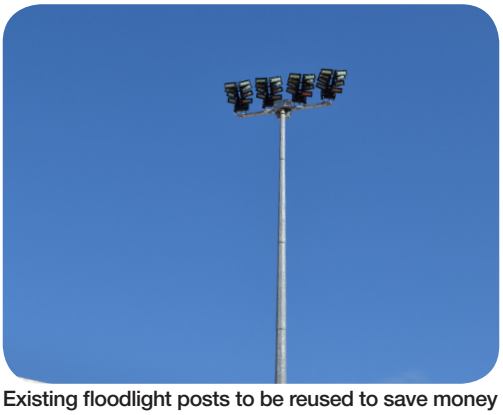
Taunton Vale hope to save 40% of their energy costs through replacing the metal halide floodlights and all the indoor lighting with LED fittings. The Club expects to reduce the their energy bill from £17,000 to £10,000 per year.

The vision is to be energy self sufficient in five years time and the installation of LED lighting will be the first phase in realising this. The success of the LED lighting may lead to further renewable energy installations utilising wind and solar technologies to be considered in the future.

Upgrading the facilities

As part of the project, Taunton Vale have upgraded and increased the size of the playing surface. This is expected to have a positive effect on the club, with a significant increase in participation and membership numbers expected to reach 3,000.

Whilst an increase in membership will bring increased revenue for the club, this will be offset slightly through extra energy requirements with the pitch being used more often for training and matches, and increased usage of the clubhouse.


Existing floodlight posts to be reused to save money

Achieving the anticipated energy and cost savings of 40% through installing LED floodlighting combined with increased revenue will make the club far more financially viable with a much reduced carbon footprint.

Sustainable features

LED lighting has a number of features that will benefit the facility.

- **Saving money** – The increased efficiency of LED lighting is anticipated to make the total lifetime cost (purchase price plus cost of electricity and lamp replacement) significantly lower than metal halide lighting. Although the initial purchase price is higher, the payback period is significantly shorter due to reduced maintenance requirements and energy consumption.
- **Reducing maintenance** - A typical LED light is stated to have an 'average life' of 20,000 hours (15 years at 4 hours/day), and will support 50,000 switch cycles. This will significantly reduce the overall maintenance costs since currently each metal halide bulb is changed a minimum of once a year.
- **Instant start up** - Metal halide bulbs require up to 15 minutes to fully warm up and reach optimum brightness when the gases burn at a high temperature. In addition, when power is lost, a metal halide bulb cannot be restarted until the ignition unit has cooled down which can typically take 10-15 minutes. LED lights have no such requirements for warming up or cooling down and can be easily switched off when the facilities are not in use.
- **Control of brightness levels** – The LED floodlights will be controlled through a booking system which automatically sets the floodlight brightness when the pitch is booked. There may be three or more brightness levels built into the system catering for matches, training and other general uses. This system will also reduce human intervention and will switch the lights on just before use and off shortly after use to prevent unnecessary energy wastage. The booking system will be a major contributing factor to the £7,000 saving in electricity.
- **Planning ahead** - LED light fittings offer a far more directable beam than conventional metal halide lighting and can significantly reduce light spillage. This has been beneficial during the planning process and the Local Authority has agreed to 'Permitted Development' rights to be used since the impact of the floodlights on the surrounding properties in the residential areas would be reduced.

> ***"... we anticipate electricity savings of 40% by installing LED lighting..."***
>
> ***Chairman***
> ***Taunton Vale Sports Club***

All floodlighting to be upgraded with new LED fittings

Between 2012 and 2017...

the Improvement Fund will invest £45m of National Lottery funding into medium-sized projects that improve the quality and experience of sport.

The Improvement Fund aims to award capital grants worth £150,000 to £500,000 into sustainable projects with a clear local need.

The priorities for 2014 are projects that can clearly demonstrate environmental sustainability through changes to efficiency and usage of energy.

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