

CHAPEL ALLERTON TENNIS AND SQUASH CLUB: WEST YORKSHIRE

Upgrading works to be completed in 2015

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:

- LED (light emitting diode) lighting to both the indoor and outdoor tennis courts
- New playing surface to the indoor tennis dome
- Underfloor heating in the squash courts
- Biomass boiler system upgrade to replace a conventional boiler

Chapel Allerton Tennis and Squash Club is set just outside Leeds city centre and has 1900 members. The club has 13 outdoor courts, 3 indoor courts, 6 squash courts and a gym.

Sport England awarded the club £210,490 towards an overall budget of £280,659 to install environmental upgrades. The money, made available through Sport England's Improvement Fund, will be used to install LED lighting to both the indoor and outdoor tennis courts, a new playing carpet in the indoor dome, under floor heating in the squash courts and will see the club move to a biomass boiler system instead of a conventional boiler. The environmental upgrades are anticipated to save 20-30% on energy costs for the club per annum. This money will be reinvested to encourage growth within the club and to act as a launch pad for further environmental improvements.

LED lighting

LED floodlights are to be installed in the 3 court indoor tennis dome. Due to improved coverage, the existing 100 metal halide lights will be reduced to 84 LED fittings. The remaining 13 outdoor tennis courts will also be upgraded from the existing metal halide fittings. The electricity cost for the dome is £12,000 per annum, and changing to LED lighting will reduce that to £9,000.

The club has already upgraded one of their indoor courts on a trial basis and found it offers a brighter playing environment whilst also being a sound environmental choice.

LED lighting will also be installed in the clubhouse and car park and it is anticipated that the energy bill will be reduced by a third by implementing these simple changes from traditional lighting to LED throughout the facility. The overall annual electricity costs are £32,000 and the savings of £10,000 per annum through utilising modern LED lighting will be reinvested to encourage growth within the junior section. The club aims to provide in-house coaching and school outreach programmes to make the sport more accessible to children in their local community.



Main entrance to the club



All outdoor courts to be upgraded with LED lighting



New playing surface and LED lighting to indoor courts

Improvement Fund Project Proposals

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.

Renewable fuel

The club will be installing a biomass plant to provide heat and hot water to the clubhouse. The improvement fund money will provide the pipe-work and associated infrastructure to which the biomass boiler will be plumbed to. Biomass boilers are wood-fuelled and burn pellets or logs to generate heat to be used within a central heating system.

The new system will supply underfloor heating to the squash courts in association with work to replace the floor and will maintain a constant minimum temperature within the courts to avoid the risk of condensation and improve player comfort. It will be more efficient and use less energy than the current ceiling mounted heaters which tend to only heat the upper half of the court.

New tennis surface

The club will be replacing the playing surface in the dome as part of this project. It is felt that the new surface and increased sustainability through energy efficiency and savings will allow the club to prosper long into the future.

“
...moving to LED lighting throughout the club could reduce the electricity consumption by a third...
”

General Manager
Chapel Allerton Tennis and Squash Club



LED lighting is to be installed throughout the facility



Wood pellets being delivered to new biomass boiler

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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