Tackling the Energy Crisis and addressing Drought Resilience at Your Club

Derbyshire

Reducing your consumption and bills

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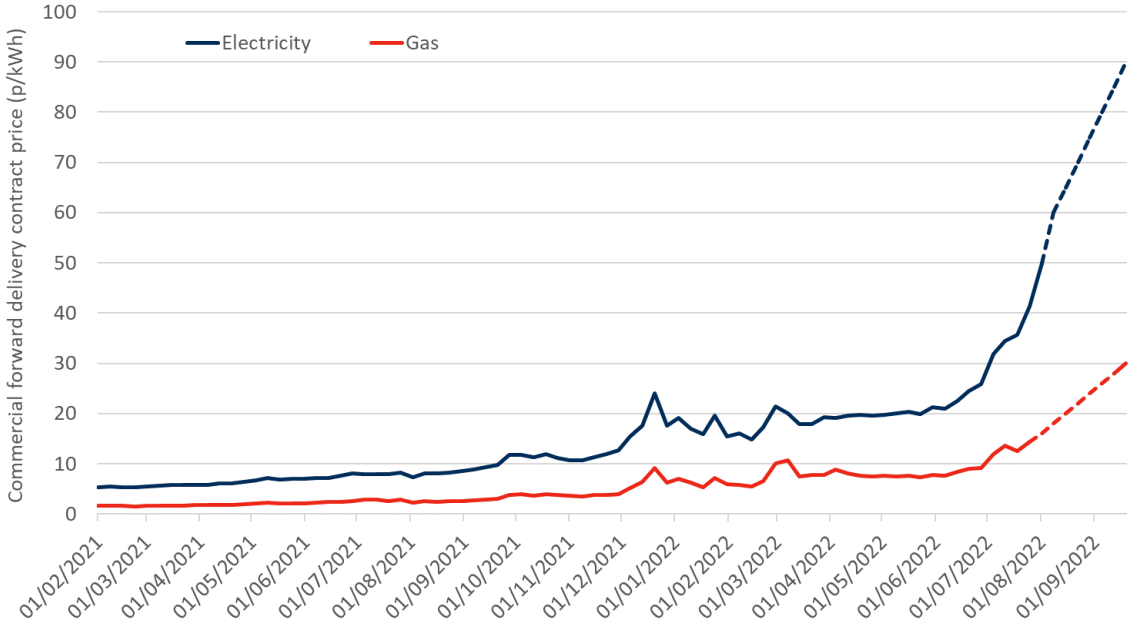
England and Wales Cricket Board

Energy Crisis
WHAT IS GOING ON?



At the end of July 22, Electricity prices were 5 x what they were in July 21

Prices have continued to increase since.

Uncertainty on future prices addressed for 6 months by the Energy Bill Relief Scheme.

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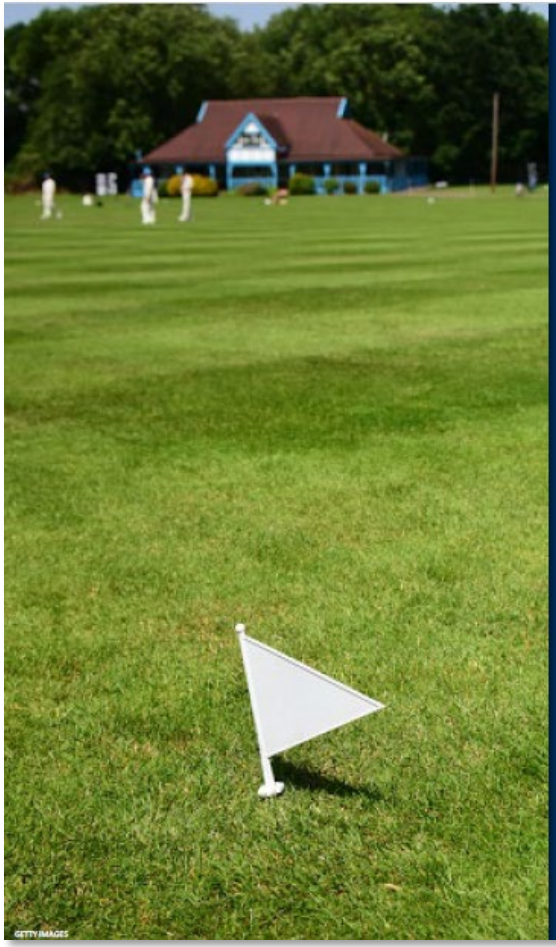

HOW TO REDUCE YOUR ENERGY CONSUMPTION

MAKE YOUR CLUB MORE ENVIRONMENTALLY SUSTAINABLE AND REDUCE YOUR OPERATING COSTS

Please think carefully before printing this guide – can you read it on a device and save paper?

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DOWNLOAD FROM THE ECB WEBSITE

Key Themes:

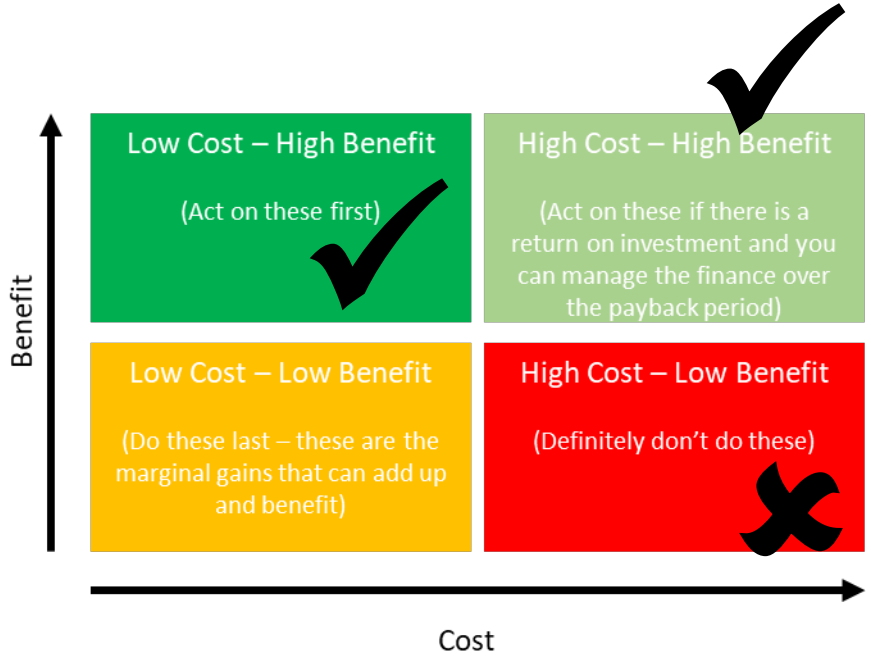
1. Reducing your consumption is win – win (it reduces your bill and your carbon footprint)
2. The time is now – address winter costs, make sure you're best placed for 2023 season.
3. Current prices mean the payback periods on investments are shorter.
4. ECB funding (grant and interest free loan) is available for suitable projects.

Download it here:
https://www.ecb.co.uk/about/what-we-do/sustainability

WHAT IS THE DOCUMENT ABOUT?

Four Sections

1. Getting the best energy deal
2. Low Cost, High Benefit Projects
3. Higher Cost but still High Impact Projects
4. What to do next?



LOW(ER) COST, HIGH BENEFIT PROJECTS

Developing Energy Efficient Behaviour

Cost: £0

Benefit: Up to 4% saving

Insulate Loft Space

Cost: £400-600

Benefit: 2-32% saving

Install Energy Saving Devices & Controls

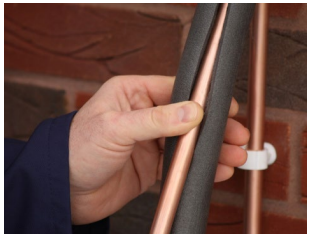
Cost: £100-5,000

Benefit: Up to 15% saving

Install Energy Saving Devices & Controls

Cost: £500

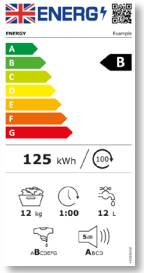
Benefit: Up to 3% saving



Insulate Hot Water System & Fix Leaks

Cost: £250-500

Benefit: 1-2% saving



Replace Old Appliances with Energy Efficient Models

Cost: £150-1000

Benefit: Variable

(replace as you go strategy)

HIGHER COST, HIGH BENEFIT PROJECTS

Insulate Walls

Cost: £12,000+

Benefit: Up to 38% saving

Replace Windows and Doors

Cost: £12,000+

Benefit: Up to 10% saving

Replace Old Boilers

Cost: £5,000+

Benefit: Up to 22% saving (G→A)

Install an Air Source Heat Pump

Cost: £12,000+

Benefit: -9 to 68% saving

Install Solar PV

Cost: £7,000+

Benefit: 17%+ saving

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ECB FUNDING

County Grant Fund (Tackling Climate Change theme) – Grants up to £10,000

https://www.ecb.co.uk/be-involved/club-support/club-funding/county-grant-fund

England and Wales Cricket Trust (EWCT) Interest Free Loan Scheme – Loans up to £50,000

https://www.ecb.co.uk/be-involved/club-support/club-funding/england-wales-cricket-trust-interest-free-loan

COUNTY GRANT FUND – 2023

ECB COUNTY GRANTS FUND

CREATING AN APPLICATION - CLUB USER GUIDE

ECB FUNDING

County Grant Fund (Tackling Climate Change theme) – 2021 & 2022 combined

Tackling Climate Change projects nationally = 111 projects (£905,761)

Midlands = 25 projects (£202,405)

Derbyshire = 7 projects (£51,137)

Local Examples

Tintwistle CC – Energy Saving
Brief Project Description
Installation of solar panel system to power clubhouse, covering light, power and Air source heat pump which supplies heat source and hot water.

Charlesworth & Chisworth CC – Energy Saving
Brief Project Description
Installation of loft/ wall insulation and 2 additional internal doors to allow better zoning for heating.

Chapel En Le Frith CC – Energy Saving
Brief Project Description
Replace 30-year-old cellar cooling unit

Eckington CC – Energy Saving
Brief Project Description
Improving our clubhouse heating system to reduce our electricity usage and reduce our carbon footprint.

Darley Dale CC – Energy Saving
Brief Project Description
Electricity supply upgrade to pavilion, nets and car park, upgrade internal electrics and heating, install CCTV and insulation.

WHAT TO DO NEXT - ENERGY

1

Download the How to Reduce Your Energy Consumption guide at https://www.ecb.co.uk/about/what-we-do/sustainability

Think about what solutions you could apply at your club and build a plan.

The biggest gains are when you can combine as many of the measures as possible to add up all the energy savings.

2

Cost your plan – speak to reputable suppliers and get costs for your buildings. Quiz them hard on potential savings and get them to show (and explain) their working!

3

Visit www.ecb.co.uk/be-involved/club-support/club-funding to find out about funding from the ECB.

Speak to your County Cricket Board about grant and loan funding for your project. They will be able to support you and draw on expertise from the ECB Facilities Team.

Addressing Drought Resilience

WATER AND DROUGHT

https://resources.thegma.org.uk/node/834

Effective and Efficient Watering in Hot, Dry Weather

Preparing Pitches Under Drought Restrictions

Work safely in hot and sunny conditions

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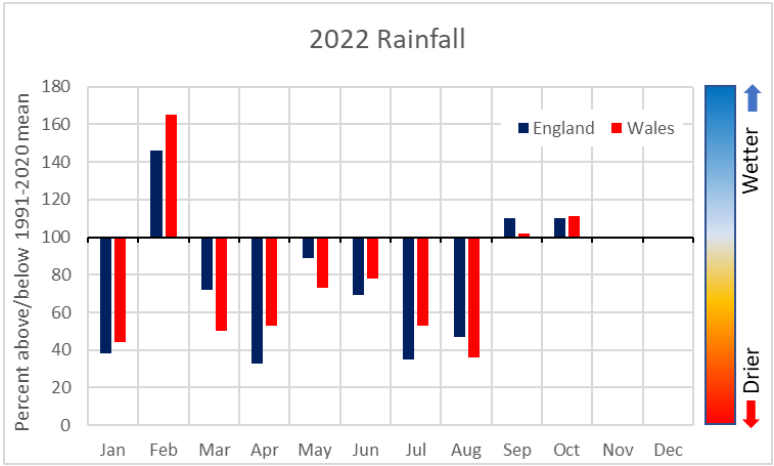
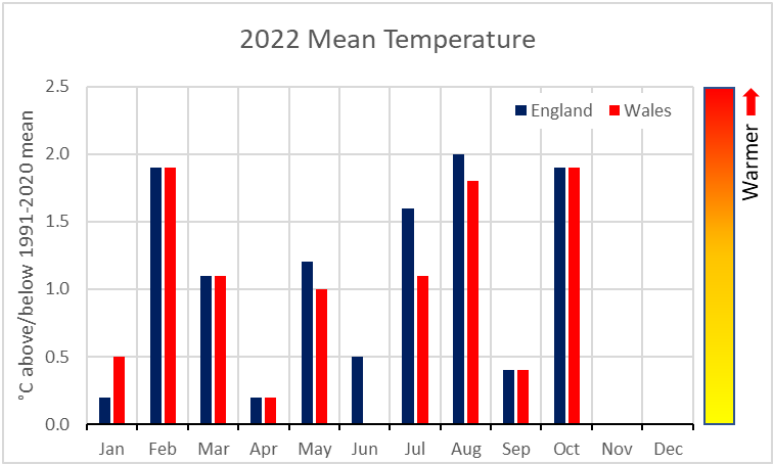
Why so many irrigation requests?





How can clubs make themselves more drought resilient (and continue to use fine turf surfaces)?

Build irrigation capacity and capability

(to water more effectively and efficiently)

Diversify from mains water

(to reduce exposure to drought restrictions, for the public good and to reduce carbon footprint)

Some typical costs:

Solution	Cost (to do it well)
Fully automatic irrigation system	£75,000 - £150,000
Automatic irrigation of cricket square	£10,000 - £25,000
Travelling irrigator system for outfield	£10,000 - £45,000
Manual irrigation set up for a square	£5,000 - £15,000
Borehole	£10,000 - £50,000
Rainwater harvesting system	£7,000 - £20,000

When does it need irrigating?

Outfields – automate where possible/affordable

Squares – manual watering essential, well zoned automatic sprinklers if budget allows.

Ideal

Water late at night/overnight when temperatures are low

Watering 1200-1500 on a hot summer's day will see 50% of water lost to evapotranspiration

Reality

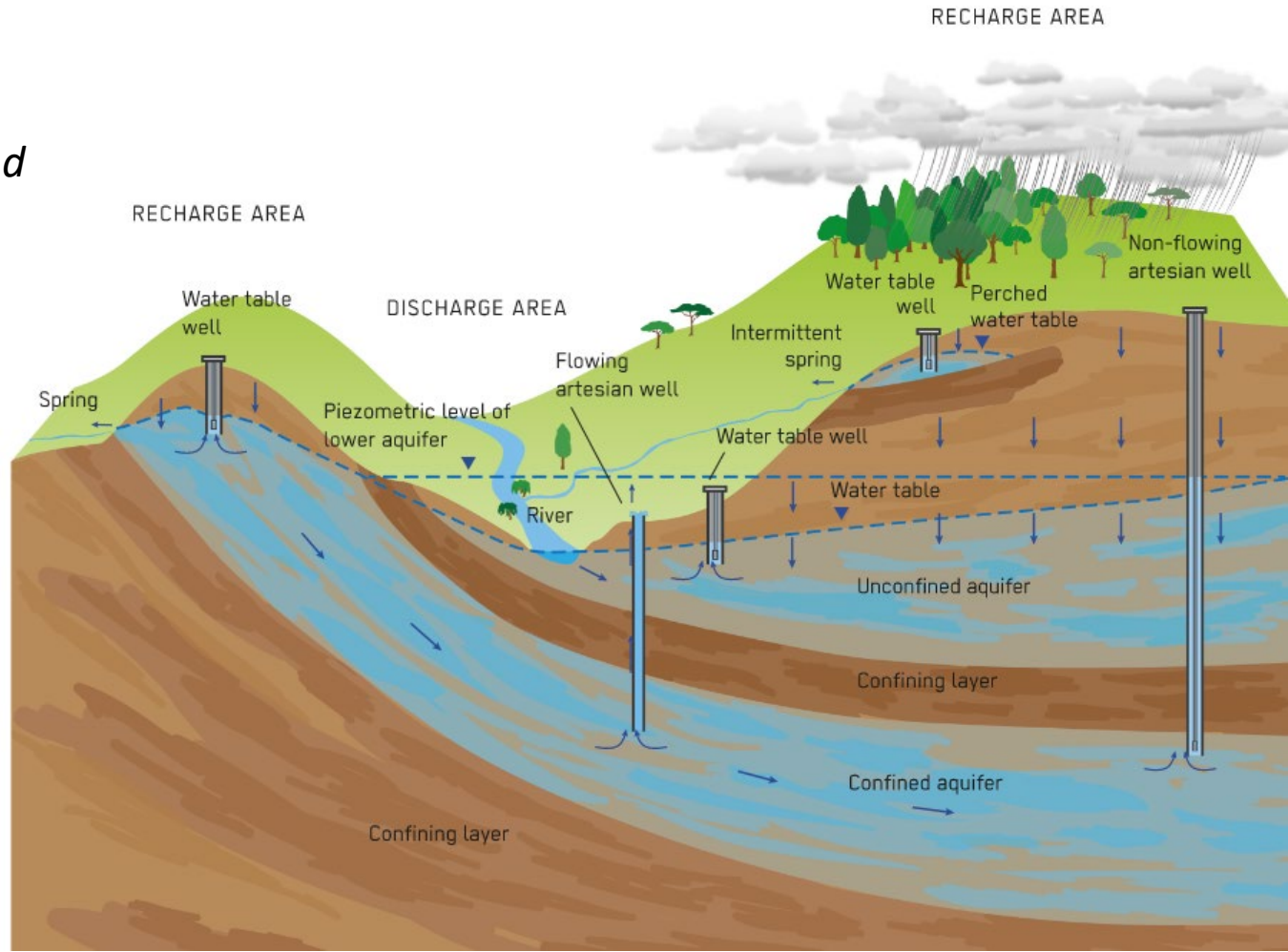
Have to irrigate when labour is available

And access to the square is possible

On squares – need targeted watering

Boreholes

Well driller gets paid to drill a borehole, not to find water



British Geological Survey

Can provide a ‘borehole prognosis report’ from £642 inc VAT

https://shop.bgs.ac.uk/Shop/Product/GRC_C105

Boreholes

1. If in doubt get a prognosis report especially if in a mining area or London.

2. BGS Geoindex Geology Maps can help.

3. Need an abstraction licence for anything more than 20 m^3/day.

4. Borehole details need to be registered with BGS.

5. Permitted development in most places if you are the landowner but care needs to be taken in some areas.

6. Groundwater can become contaminated – registering with the BGS (and EA) means they can notify the club.

7. Boreholes are a pathway for groundwater contamination so should be properly lined and capped and not near machinery washdown, pesticide/fuel storage etc.

Water course abstraction

1. Need an abstraction licence for anything more than 20 m^3/day

2. Need Environment Agency permit for works within 8 m of top of bank of a major river

3. Abstraction from surface water more liable to 'hands off' orders than groundwater

4. Much greater risk of pollution than groundwater

Tanks and storage

Air gap between inlet mains water pipe level and the overflow pipe

It has a water meter on the supply

It has an automatic shut off valve for when the tank is full

WRAS WATER REGULATIONS APPROVAL SCHEME

This makes this solution WRAS Cat 5 backflow prevention compliant

Is our solution legal and safe?

Good Practice

Reducing consumption of mains water

Using a good irrigation contractor

All connections and fittings to mains water WRAS compliant and installed by a trained plumber

Electrical works installed, tested and certified by an electrician

WRAS Category 5 compliant system

Evidence of good design practice
(layout drawing, tank calcs, pump specs etc)

Distribution mains with hydrant points for travelling irrigators

Somebody has thought about the labour

Bad Practice

Any pumping of grey water from long stored tanks without treatment

Pumping directly off the mains water supply
(boosting) – it's illegal

Incompetent DIY – electricity and water dangerous, especially for 3 phase pumps

Long hoses

Direct connections of pitch-side hydrants to the mains (or use of Cat3 non-return valves)

People (usually developers) building squares without water supplies

Not building tank bases correctly

Clubs not thinking about cricket needs

Clifton CC

County Grant Fund (Tackling Climate Change theme)

Water Management

Brief Project Description

Installation of water harvesting, storage tank and pipework to reduce water usage and waste.

Project Need

We currently water the square using mains water and suffer from low water pressure at the ground which means that sprinklers are left running unattended resulting in wasted water. As an alternative, if successful, we would like to install a water storage tank which is fed by harvesting rain water. Then to install a pump and pipework to deliver the water from the tank to the square at increased pressure for more efficient watering. In addition the water pipe which carries mains water to the ground is in urgent need of replacement as it is circa 60 years old and prone to leaking thus wasting water and increasing costs unnecessarily.

Duffield CC

County Grant Fund (Tackling Climate Change theme)

Water Management

Brief Project Description

To install borehole and pump to provide sustainable water source for maintaining both cricket pitches

Project Need

Our club has 2 grounds and uses treated and metered Severn Trent water to maintain and water our pitches. The low water pressure in Duffield means that it takes hours and days to get sufficient water onto to the pitches. Our ground lies in the Derwent Valley only a few hundred yards from the River Derwent making a borehole not only viable but highly beneficial due to the sustainability of essentially recycling water from the ground, spreading it over the pitches and then back down into the ground. The pump will also ensure far greater water pressure to speed up the watering process.

WHAT TO DO NEXT - WATER

1

Visit https://www.ecb.co.uk/about/what-we-do/sustainability

More to come on Water consumption soon

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Any questions?