

Some environmental issues have been with us for many years such as a steady increase in the energy efficiency of residential buildings, the introduction of recycling schemes, and improvements in the air quality of our cities through smoke control and vehicle emissions.

This guidance is to encourage potential Football Foundation grant applicants to consider the environmental impact of their proposed projects and how this might be reduced.

### Topics where the Foundation would encourage best practice include:

- Energy consumption and conservation.
- Use of alternative fuels (renewable sources and on site generation\*).
- Smart use of water (reduce and/or recycle).
- Water disposal (SUDS – Sustainable Urban Drainage Systems).
- Use of renewable, sustainable, and recycled materials.
- Waste management, prevention, recycling, avoidance of landfill (see the Waste Reduction Action Programme website [www.wrap.org.uk](http://www.wrap.org.uk)).
- Avoidance of pollution.
- Reduction in carbon emissions.
- Transport policies and access to facilities.
- Contaminated land use, land remediation and use of brownfield sites.
- Avoidance of contamination.
- Encourage the use of local labour and materials.
- Save carbon (design advice [www.carbontrust.co.uk](http://www.carbontrust.co.uk) and [www.SustainableBuild.co.uk](http://www.SustainableBuild.co.uk)).

\*Alternative micro-generation measures that might be appropriate include:

- Wind turbines (electricity generation).
- Solar panels (water heating).
- Solar photovoltaics (electricity generation from ultraviolet light).
- Ground source heat pumps (hot water/heating).

- Small hydro (limited locations, needs a flowing stream or similar).
- Biomass (biofuels/bioenergy – burning non-fossil fuels of recent origin).

### Possible funding sources

Whilst there are costs associated with going green some grant applicants (depending on their status) might be able to access additional grants specifically for this purpose. There is a Government funded scheme available through the Department for Business, Enterprise & Regulatory Reform (BERR). Grants of up to £1m are managed by the Building Research Establishment on behalf of BERR. The Government also has various tax incentives linked to energy efficiency through Enhanced Capital Allowances on qualifying plant and machinery. There is also the Landfill Communities Fund that is a way of Landfill Operators supporting local communities near their sites by making use of associated tax credits. Energy Efficiency Loans are available from the Carbon Trust who have also issued a Good Practice Guide. European funds might also be available through the Environment Directorate General for Environment.

There are a number of European funding initiatives, in particular the European Recovery Plan which is about investing in Europe's long-term economic health and in boosting the fight against climate change. Their website offers good background to the plan and European Investment Bank contribution, including the benefits from social and cohesion fund payments, green cars, energy efficient buildings and factories of the future. More information around the Recovery Plan:

<http://www.egovmonitor.com/node/22273>

The European Recovery Plan can be seen in detail:

[http://ec.europa.eu/commission\\_barroso/president/pdf/Comm\\_20081126.pdf](http://ec.europa.eu/commission_barroso/president/pdf/Comm_20081126.pdf)



The European Social Fund is another source of possible funding, administered throughout the UK with an aim to support sustainable development. Information about how this programme supports sustainability can be found here:

[http://www.esf.gov.uk/info\\_for\\_cfo\\_and\\_projects/sustainable\\_development.asp](http://www.esf.gov.uk/info_for_cfo_and_projects/sustainable_development.asp)

Advice can be obtained from your local Development Agency who offer information on funding and tendering, particularly in relation to green issues and sustainability:

<a href="http://www.lda.gov.uk">www.lda.gov.uk</a>	London
<a href="http://www.seeda.co.uk">www.seeda.co.uk</a>	South East
<a href="http://www.southwestrda.org.uk">www.southwestrda.org.uk</a>	South West
<a href="http://www.emda.org.uk">www.emda.org.uk</a>	East Midlands
<a href="http://www.advantagewm.co.uk">www.advantagewm.co.uk</a>	West Midlands
<a href="http://www.nwda.co.uk">www.nwda.co.uk</a>	North West
<a href="http://www.onenortheast.co.uk">www.onenortheast.co.uk</a>	North East

Other useful websites include:

<http://www.environment-agency.gov.uk/business/sectors/32705.aspx>

<http://www.carbontrust.co.uk/cut-carbon-reduce-costs/products-services/loans/pages/loans.aspx>

<http://www.greengrantsmachine.co.uk/page.aspx?SP=5422>

Funding initiatives change and evolve constantly. Grant applicants are advised to make enquiries and familiarise themselves with what might be available to them whether from European, national or local sources.

## Legislation

There have for many years been regulations about energy conservation and anti-pollution measures and these continue to become more robust through the Building Regulations and Planning Controls. There is also now the European Energy Performance of Buildings Directive, BS EN ISO 14001:2004 (Environmental Management Systems) DEFRA's Sustainable Procurement Action Plan, and many more. There are also many other areas of related guidance such as the PPGs (Planning Policy Guides) that incorporate environmental implications.

## Other issues to be considered

The relevance of some green issues to football projects might seem obvious such as the energy consumption of new pavilions or the type of materials used in their construction, but some related matters might be more difficult to establish.

Some of the less apparent environmental implications of sports facilities include for example disposing of 200 tonnes of rubber crumb infill from every third generation artificial pitch after say just five years of use. Both the rubber and the synthetic turf itself could be cleaned and recycled but it is not a cost effective operation so in reality, it rarely happens. Artificial pitches are usually laid on 300mm thick stone base requiring around 3,000 tons per pitch. Whilst often frowned upon, there is no reason why with the appropriate certification recycled stone or crushed concrete etc could not be used for this purpose but ironically, virgin stone is usually cheaper and remains the preferred choice.

Perceptions and expectations are constantly changing. For example, until quite recently the preceding 20 years saw a shift away from timber building products to using low maintenance PVC; part of the reasoning being to protect trees. Current thinking has however reversed this in that well managed forests have resulted in timber now being regarded as a renewable resource whilst the production of PVC has huge negative environmental connotations.

Another concern is the disposal of water collected by drainage systems from both natural and artificial pitches. It is almost certain to contain low levels of contamination from fertilisers and fungicides together with decomposed organic matter. The rate of run-off also needs to be controlled in order to prevent flooding from discharge into water courses and streams, or overloading of piped systems. When planning such facilities full account should be taken of the Environment Agency's policies and guidance on Sustainable Drainage Systems (SUDS).

Car parking can be a controversial issue for the Football Foundation. Ideally we would wish to promote the use of public transport and cycling to our funded facilities and not seen to be offering support to car parks that might encourage thousands of regular users to arrive by private transport. We need to recognise however, that this could severely disadvantage rural areas with little or no public transport and also raise child protection concerns by encouraging young children to travel alone. Also, without parking provisions it would be less convenient for parents to get their children to a Foundation facility and this in turn could lead to a decline in participation.

The above are just a few examples of the type of matters that the Foundation wishes to see grant applicants giving serious consideration to throughout the design of their facilities.

## Cost implication examples

Invariably there will be costs associated with meeting green objectives, some fairly modest but others of major significance and it is important to keep these in perspective. For example, the provision of space heating for changing rooms could be achieved at very little cost. Wall mounted fan heaters costing less than £50 are often the most convenient and cheapest method and if they are only going to be in use for maybe just 15 minutes a few times each day, they can be very cheap to run (but may be subject to building control consultation and off-setting with higher insulation levels). As a greener alternative, a ground source heat pump would reduce carbon emissions by making use of the earth's low grade background energy, but its installation might cost up to £30,000 depending on the site.

Development sites large enough to facilitate artificial pitches are often hard to find and cost prohibitive particularly in urban areas, but it may provide an excellent opportunity to bring contaminated land back into use. These sites may require complex and expensive engineering solutions to overcome the problems, but this should be recoverable through the depressed value of the land.

## Summary

Grant applicants and their consultants should not just be aware of the need for compliance with relevant legislation, but should also consider other environmental improvements to their projects even where not obliged to do so.

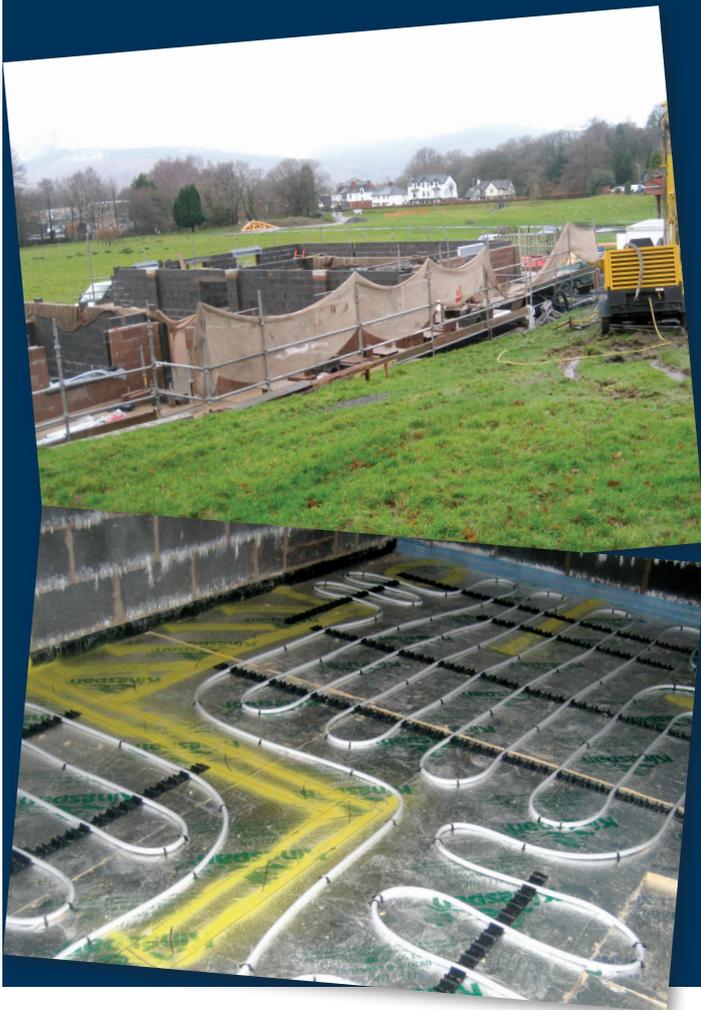
There needs to be a social commitment to meeting sustainable objectives and not simply considering the economic merits of a system. Applicants might also wish to consider the broader issues of social and ethical responsibility such as whether the timber was from legal, sustainable sources or whether building materials used in projects were produced by child labour in developing countries.

### Case Study Keswick FC

Total project cost – £962,971

Keswick FC is located within the conservation area of the Lakes National Park. The changing rooms serve both football and cricket and the traditional pavilion style was sensitively designed to meet stringent planning conditions including locally quarried Lakeland slate for the roof.

In addition to the four team changing rooms plus officials' facilities, the building also included a dual use meeting/function room meaning that the building would be in constant use. For this reason it was decided to install a sustainable energy supply and included under-floor heating from a ground source heat pump.



### Case Study Burgess Park

Total project cost – £1,807,350

Burgess Park in the London Borough of Southwark was created in the 1940s from an area that had suffered extensive bomb damage. Grass pitches and tennis facilities had been installed during more recent years but without adequate changing rooms. In order to be visually unobtrusive in the park, the new building was partially submerged and surrounded by grass banking. The front elevation was extensively covered with photovoltaic cells that contribute towards the electricity demands of the building. The building's heating is served by a ground source heat pump.



## Case Study

### Yarborough Leisure Centre

Total project cost – £923,860

On what was already a well used sporting site this project offered the opportunity to enhance the development of football in North Lincoln.

The new pavilion provides six changing rooms with showers and toilets, two en-suite changing rooms for officials, a coaching room, a kitchen and spectator toilets. It is well designed being contemporary in appearance with external facing block walls with horizontal cedar boarding at high level. The gull wing roof design was constructed from profiled metal decking and provides natural lighting to the central corridor area through polycarbonate roof lights. There is a rainwater harvesting system which has the added benefit that urinals are flushed with non-scaling water which reduces future maintenance.

Due to the planning requirement for environmental sustainability the building includes several energy saving measures including two air source heat pumps, a solar-thermal system (that pre-heats the large tank to 45°C even on dark, cold days), and solar panels. Despite a small impact on efficiency in really bad weather, the heating system has proved to work well in all weathers.



## Case Study

### Hemyock Parish Council

Total project cost – £289,215

Hemyock and the surrounding villages in Devon had inadequate sports facilities to serve its two football clubs, a tennis club and two primary schools. The new changing rooms will serve new pitches that had been developed from pastureland. The building incorporates many environmentally sustainable features including a ground source heat pump providing hot water and under floor heating, solar panels to supplement the hot water system, a well insulated sedum roof that reduces rainwater run-off, and sun tubes providing lighting to the changing rooms in-lieu of external windows.



## Disclaimer

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**Should you have any queries on this Technical Guidance Note or anything on the wider work of the Football Foundation, please do not hesitate to contact us.**



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