The cost of running performing arts buildings

cost issues – certainly an imposing, striking form but maybe not to everyone's taste.

So what about the bigger picture? What about performing arts buildings in context? What part of the building stock do they represent and how much of our energy consumption do they account for? From the images on the right we can see that it is actually a very small proportion.

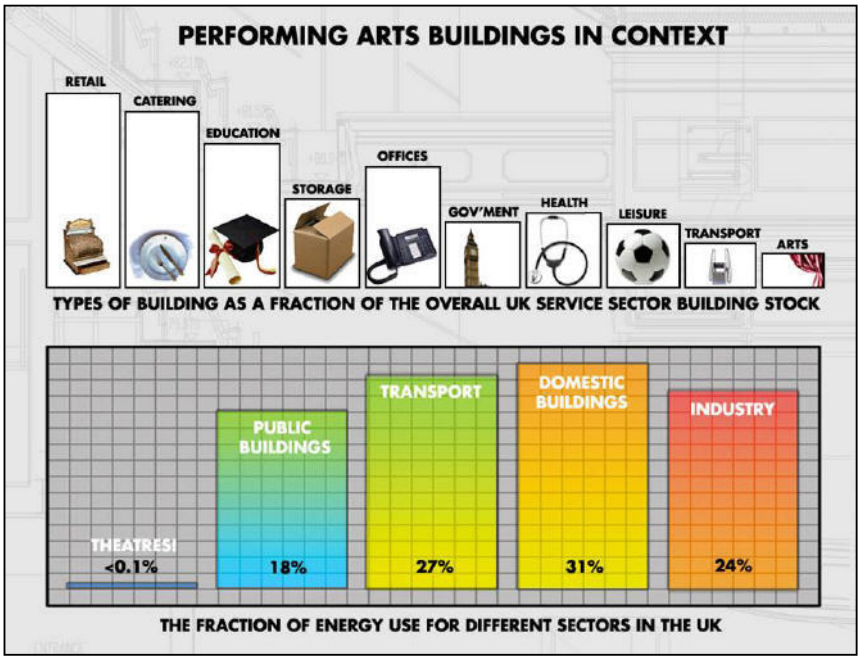
The lower chart represents the total energy use for different sectors in the UK; public buildings, transport, housing, industry and commerce. The overall contribution from transport is significant but, even with this accounted for, theatres represent less than 1/1000th of the energy use in the UK and, although this diagram is based on the UK, it will be representative of most Western countries. Looking at those percentages, you might ask why should we bother – why should we make theatres energy-efficient – surely our efforts would be better rewarded elsewhere?

We believe that theatres can punch above their weight and make a significant impact. First, they are often iconic and capture the public imagination. As they are often publicly funded, they should offer exemplary standards in design and energy use. They are exposed to a significant fraction of the population and have a real educative potential. A groundbreaking design for a commercial office building somewhere that few people will visit or see, let alone use, simply will not be capable of capturing the public imagination in a way that a theatre can. Theatres can have a significant role in informing and educating the population.

Theatres will need to meet increasingly strict standards for CO_2 emissions. It is clear that there will be regulatory-driven progression on this, not just in the UK, but everywhere. Lower energy buildings cost less to run, or are at least designed to cost less to run, but they also have the potential to reduce initial capital and later replacement costs. The last point is that environmentally responsible designs can attract funding and subsidies, and the political emphasis is shifting in favour of such approaches.

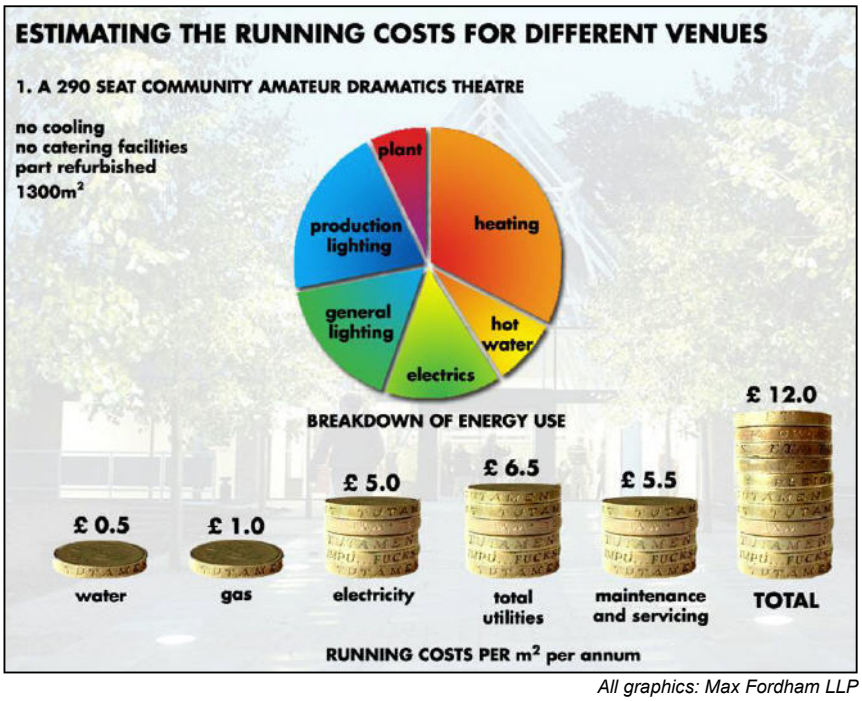
ESTIMATING RUNNING COSTS

We have recently carried out a study for a national revenue-funding body in the UK which considered the energy, running and operating costs of some different venues. The models used for this study were a bit idealised and show what might be possible for the type of venue rather than the reality, and whereas the relative magnitudes are about right, the totals could be out by up to a factor of two depending on how the building is used.



The first of these is for a t
venue with no cooling an
from a modest bar; a
amateur dramatics theatr
partially refurbished. Abo
consumption is for me
heating, ventilation an
about half for electrical p
The total of £12/m²/annu
US$2/ft²/ annum) repres
the running costs as i
earlier.

Management consultant Jane Hellings explains the issues arising when planning a new project or upgrade and gives examples of the breakdown of costs for various types of theatres, and services engineer Ian Smith reports on the running costs of different venues and shows the way these costs can be reduced in the future.



All graphics: Max Fordham LLP