

# Errata

- Page 2, page 18** Apologies to Jonathon Porritt for misspelling his first name.
- Page 30–31** Note 29. In the sentence,  
If I said “the average use of energy for car driving in the UK is 24 kWh/d per person,” I bet some people would misunderstand and say: “I’m a car driver so I guess I use 24 kWh/d.”  
replace both “24”s by “13”. (Explanation: 24 kWh/d/p was the average use of energy for all road transport. Of that, 13 kWh/d/p goes into cars and motorcycles.)
- Page 43** Figure 6.11 *corn to ethanol* “0.02 W/m<sup>2</sup>” should be “0.048 W/m<sup>2</sup>”.  
(See erratum for page 284, below, for details.)
- Page 47** add closing parenthesis: “band-gap is lost.” should read “band-gap is lost.)”
- Page 55** Map showing Kinlochewe and Bedford: Kinlochewe should be located about 60 km further north.
- Page 56** (note 56, line 8) “has a per” should read “has a power per”.
- Page 62** line 14 from the bottom, “0.14 million tons” should read “140 million tons”.
- Page 85** In the map of Northern Ireland the place-name “Downpatrick” is missing its first letter.
- Page 120** **trolleybuses...** “270 kWh per vehicle-km” should read “270 kWh per 100 vehicle-km”
- Page 133** “Rijnsdam” should read “Rijndam”.
- Page 167** After discussing the cost of cleaning up nuclear sites, add: “Moreover, most of this nuclear clean-up cost is associated with weapons-making facilities, not civilian power stations.”
- Page 169–170** “after 1000 years, the radioactivity of the high-level waste is about the same as that of uranium ore.” should read “if we reprocess the waste, separating off the uranium and plutonium for reuse in new nuclear fuel, then after 1000 years, the radioactivity of the high-level waste is about the same as that of uranium ore.”
- Page 192** Table 26.7, Columns 2 and 3. All volumes (40, 40, 100...) and depths (20, 10, 20...) should be doubled (to 80, 80, 200... and 40, 20, 40... respectively).
- Page 204** Figure 27.1. The red box marked Transport **20 kWh/d** and the adjacent blue box marked Electricity **18 kWh/d** were both accidentally drawn 10% too tall.
- Page 205** Paragraph 2, last line: “2 kWh/d/p of solar hot water” should read “1 kWh/d/p of solar hot water”.
- Page 217** “the cost of decommissioning the UK’s nuclear power stations” – add – “and nuclear-weapon factories”.
- Page 246** “To pulverized the rocks” should read “To pulverize the rocks”.
- Page 281** Paragraph 1, line 2: “depends only” should read “depends only on”.
- Page 284** *Bioethanol from corn in the USA:* “0.02 W/m<sup>2</sup>” should read “0.2 W/m<sup>2</sup>”.
- To make this section more informative I would discuss processing costs too, as follows:  
1 acre produces 122 bushels of corn per year, which makes 122 × 2.6 US gallons of ethanol, which at 84 000 BTU per gallon would mean a power per unit area of 0.2 W/m<sup>2</sup>; however, the energy *inputs* required to process the corn into ethanol amount to 83 000 BTU per gallon; so 99% of the energy produced is used up by the processing, and the *net* power per unit area is about 0.002 W/m<sup>2</sup>. The only way to get significant net power from the corn-to-ethanol process is to ensure that all co-products are exploited; including the energy in the co-products, the net power per unit area is about 0.05 W/m<sup>2</sup>.
- Page 286** Paragraph 2, line 4: “If 2800 m<sup>2</sup> of Britain (that’s all agricultural land)...” should read “If 2800 m<sup>2</sup> per person of Britain (that’s all agricultural land)...”

*Page 298, 299* The top line of page 298 gives  $6.6 \text{ W/m}^2$  as the total power per unit area of the Heat-keeper house. This is incorrect.  $6.6 \text{ W/m}^2$  is the heating power only. The total power per unit area is  $12.2 \text{ W/m}^2$ . This error is repeated in figure E.12 (p299).

(The equivalent breakdown of power consumption in my house, “after” the austerity measures were introduced, is  $6.2 \text{ W/m}^2$  of gas and  $7.1 \text{ W/m}^2$  total.)

*Page 299* Another niggle with figure E.12 is that the PassivHaus standards use a different convention for defining power: they define power in terms of “primary energy consumption,” which requires knowledge of the primary sources of electricity and fuel, and of conversion efficiencies. This means that the PassivHaus standards are actually more stringent than the figure shows; exactly how much more stringent depends on the fuel mix.

*Page 316* Add the equation number (G.10) to the

equation on this page.

*Page 324* line 22:

“(10 kWh/d per person)”  
should read “(10 kWh per kg)”.

*Page 353* SCHLAICH, J.: Correct bibliography entries are:

SCHLAICH J., BERGERMANN R., SCHIEL W., and WEINREBE G. (2005). Design of Commercial Solar Updraft Tower Systems – Utilization of Solar Induced Convective Flows for Power Generation. *Journal of Solar Energy Engineering* **127** (1): 117-124. doi:10.1115/1.1823493.

SCHLAICH J. and SCHIEL W. (2001). Solar Chimneys. In R.A. Meyers (ed), *Encyclopedia of Physical Science and Technology*, 3rd Edition, Academic Press, London. ISBN 0-12-227410-5.

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