

## Liste der Weblinks

Hier sind die expliziten Links für die korrespondierenden “tinyURLs”, die im Text genannt sind. Die hier angegebenen Seitennummern beziehen sich auf die englische Originalausgabe und weichen von der Nummerierung dieses Buches ab. Auf <http://tinyurl.com/yh8xse> (oder [www.inference.phy.cam.ac.uk/sustainable/book/tex/cft.url.html](http://www.inference.phy.cam.ac.uk/sustainable/book/tex/cft.url.html)) sind anklickbare Verknüpfungen für alle URLs dieses Buches. Sollte ein URL nicht mehr funktionieren, hilft eventuell das Internetarchiv der Wayback Machine [f754] weiter.

p tinyURL Full web link.

18 ydoobr [www.bbc.co.uk/radio4/news/anyquestions\\_transcripts\\_20060127.shtml](http://www.bbc.co.uk/radio4/news/anyquestions_transcripts_20060127.shtml)  
18 2jhve6 [www.ft.com/cms/s/0/48e334ce-f355-11db-9845-000b5df10621.html](http://www.ft.com/cms/s/0/48e334ce-f355-11db-9845-000b5df10621.html)  
19 25e59w [news.bbc.co.uk/1/low/uk\\_politics/7135299.stm](http://news.bbc.co.uk/1/low/uk_politics/7135299.stm)  
19 5o7mxk [www.guardian.co.uk/environment/2007/dec/10/politics](http://www.guardian.co.uk/environment/2007/dec/10/politics)  
19 5c4olc [www.foe.co.uk/resource/press\\_releases/green\\_solutions\\_undermined\\_10012008.html](http://www.foe.co.uk/resource/press_releases/green_solutions_undermined_10012008.html)  
19 2ftzd3 [www.jalopnik.com/cars/alternative-energy/now-thats-some-high-quality-h2o-car-runs-on-water-177788.php](http://www.jalopnik.com/cars/alternative-energy/now-thats-some-high-quality-h2o-car-runs-on-water-177788.php)  
19 26e8z [news.bbc.co.uk/1/hi/sci/tech/3381425.stm](http://news.bbc.co.uk/1/hi/sci/tech/3381425.stm)  
19 ykhajj [politics.guardian.co.uk/terrorism/story/0,,1752937,00.html](http://politics.guardian.co.uk/terrorism/story/0,,1752937,00.html)  
20 l6y5g [www.grida.no/climate/ipcc\\_tar/wg1/fig3-1.htm](http://www.grida.no/climate/ipcc_tar/wg1/fig3-1.htm)  
20 5qfkaw [www.nap.edu/catalog.php?record\\_id=12181](http://www.nap.edu/catalog.php?record_id=12181)  
21 2z2xg7 [assets.panda.org/downloads/2\\_vs\\_3\\_degree\\_impacts\\_1oct06\\_1.pdf](http://assets.panda.org/downloads/2_vs_3_degree_impacts_1oct06_1.pdf)  
21 yxq2m [www.bp.com/genericsection.do?categoryId=93&contentId=2014442](http://www.bp.com/genericsection.do?categoryId=93&contentId=2014442)  
21 dzcqz [www.defra.gov.uk/environment/climatechange/internat/pdf/avoid-dangercc.pdf](http://www.defra.gov.uk/environment/climatechange/internat/pdf/avoid-dangercc.pdf)  
21 y98ys5 [news.bbc.co.uk/1/hi/business/4933190.stm](http://news.bbc.co.uk/1/hi/business/4933190.stm)  
30 5647rh [www.dft.gov.uk/pgr/statistics/datatablespublications/tsbg/](http://www.dft.gov.uk/pgr/statistics/datatablespublications/tsbg/)  
31 27jdc5 [www.dft.gov.uk/pgr/statistics/datatablespublications/energyenvironment/tsbg-chapter3energyandtheenvi1863](http://www.dft.gov.uk/pgr/statistics/datatablespublications/energyenvironment/tsbg-chapter3energyandtheenvi1863)  
31 28abpm [corporate.honda.com/environmentology/](http://corporate.honda.com/environmentology/)  
31 nmn4l [www.simetric.co.uk/si\\_liquids.htm](http://www.simetric.co.uk/si_liquids.htm)  
31 2hcgdh [cta.ornl.gov/data/appendix\\_b.shtml](http://cta.ornl.gov/data/appendix_b.shtml)  
34 vxhjh [www.cl.cam.ac.uk/research/dtg/weather/](http://www.cl.cam.ac.uk/research/dtg/weather/)  
34 tdvml [www.phy.hw.ac.uk/resrev/aws/awsarc.htm](http://www.phy.hw.ac.uk/resrev/aws/awsarc.htm)  
36 3fbufz [www.ipcc.ch/ipccreports/sres/aviation/004.htm](http://www.ipcc.ch/ipccreports/sres/aviation/004.htm)  
36 3asmgy [news.independent.co.uk/uk/transport/article324294.ece](http://news.independent.co.uk/uk/transport/article324294.ece)  
36 9ehws [www.boeing.com/commercial/747family/technical.html](http://www.boeing.com/commercial/747family/technical.html)  
36 3exmgv [www.ryanair.com/site/EN/about.php?page=About&sec=environment](http://www.ryanair.com/site/EN/about.php?page=About&sec=environment)  
36 ynmum [www.grida.no/climate/ipcc/aviation/124.htm](http://www.grida.no/climate/ipcc/aviation/124.htm)  
37 36w5gz [www.rolls-royce.com/community/downloads/environment04/products/air.html](http://www.rolls-royce.com/community/downloads/environment04/products/air.html)  
44 2rqloc [www.metoffice.gov.uk/climate/uk/location/scotland/index.html](http://www.metoffice.gov.uk/climate/uk/location/scotland/index.html)  
44 2szckw [www.metoffice.gov.uk/climate/uk/stationdata/cambridgedata.txt](http://www.metoffice.gov.uk/climate/uk/stationdata/cambridgedata.txt)  
45 5hrxls [eosweb.larc.nasa.gov/cgi-bin/sse/sse.cgi?+s01](http://eosweb.larc.nasa.gov/cgi-bin/sse/sse.cgi?+s01)  
45 6z9epq [www.solarcentury.com/knowledge\\_base/images/solar\\_pv\\_orientation\\_diagram](http://www.solarcentury.com/knowledge_base/images/solar_pv_orientation_diagram)  
47 2tl716 [www.reuk.co.uk/40-Percent-Efficiency-PV-Solar-Panels.htm](http://www.reuk.co.uk/40-Percent-Efficiency-PV-Solar-Panels.htm)  
47 6hobq2 [www.azonano.com/news.asp?newsID=4546](http://www.azonano.com/news.asp?newsID=4546)  
47 2lsx6t [www.udel.edu/PR/UDaily/2008/jul/solar072307.html](http://www.udel.edu/PR/UDaily/2008/jul/solar072307.html)  
47 62ccou [www.nrel.gov/news/press/2008/625.html](http://www.nrel.gov/news/press/2008/625.html)  
48 5hzs5y [www.ens-newswire.com/ens/dec2007/2007-12-26-093.asp](http://www.ens-newswire.com/ens/dec2007/2007-12-26-093.asp)  
48 39z5m5 [news.bbc.co.uk/1/hi/world/europe/6505221.stm](http://news.bbc.co.uk/1/hi/world/europe/6505221.stm)  
48 2uk8q8 [www.powerlight.com/about/press2006\\_page.php?id=59](http://www.powerlight.com/about/press2006_page.php?id=59)  
48 2ahecp [www.aps.org/meetings/multimedia/upload/The\\_Status\\_and\\_Outlook\\_for\\_the\\_Photovoltaics\\_Industry\\_David\\_E\\_Carlson.pdf](http://www.aps.org/meetings/multimedia/upload/The_Status_and_Outlook_for_the_Photovoltaics_Industry_David_E_Carlson.pdf)  
48 6kqq77 [www.defra.gov.uk/erdp/pdfs/ecs/miscanthus-guide.pdf](http://www.defra.gov.uk/erdp/pdfs/ecs/miscanthus-guide.pdf)  
58 ynjzej [www.aceee.org/conf/06modeling/azevado.pdf](http://www.aceee.org/conf/06modeling/azevado.pdf)  
64 wbd8o [www.ref.org.uk/energydata.php](http://www.ref.org.uk/energydata.php)  
66 25e59w [news.bbc.co.uk/1/low/uk\\_politics/7135299.stm](http://news.bbc.co.uk/1/low/uk_politics/7135299.stm)  
66 2t2vjg [www.guardian.co.uk/environment/2007/dec/11/windpower\\_renewableenergy](http://www.guardian.co.uk/environment/2007/dec/11/windpower_renewableenergy)  
66 57984r [www.businessgreen.com/business-green/news/2205496/critics-question-government](http://www.businessgreen.com/business-green/news/2205496/critics-question-government)  
66 6oc3ja [www.independent.co.uk/environment/green-living/donnachadh-mccarthy-my-carbonfree-year-767115.html](http://www.independent.co.uk/environment/green-living/donnachadh-mccarthy-my-carbonfree-year-767115.html)  
66 5soqj2 [www.housebuildersupdate.co.uk/2006/12/eco-bollocks-award-windsave-ws1000.html](http://www.housebuildersupdate.co.uk/2006/12/eco-bollocks-award-windsave-ws1000.html)  
66 6g2jm5 [www.carbontrust.co.uk/technology/technologyaccelerator/small-wind](http://www.carbontrust.co.uk/technology/technologyaccelerator/small-wind)  
79 5h69fm [www.thepoultrysite.com/articles/894/economic-approach-to-broiler-production](http://www.thepoultrysite.com/articles/894/economic-approach-to-broiler-production)  
80 5pwojp [www.fertilizer.org/ifa/statistics/STATSIND/pkann.asp](http://www.fertilizer.org/ifa/statistics/STATSIND/pkann.asp)  
80 5bj8k3 [www.walkerscarbonfootprint.co.uk/walkers\\_carbon\\_footprint.html](http://www.walkerscarbonfootprint.co.uk/walkers_carbon_footprint.html)  
80 3s576h [www.permatopia.com/transportation.html](http://www.permatopia.com/transportation.html)  
87 6xrm5q [www.edf.fr/html/en/decouvertes/voyage/usine/retour-usine.html](http://www.edf.fr/html/en/decouvertes/voyage/usine/retour-usine.html)  
94 yx7zm4 [www.cancentral.com/funFacts.cfm](http://www.cancentral.com/funFacts.cfm)  
94 r22oz [www-materials.eng.cam.ac.uk/mpsite/interactive\\_charts/energy-cost/NS6Chart.html](http://www-materials.eng.cam.ac.uk/mpsite/interactive_charts/energy-cost/NS6Chart.html)  
94 yhrest [www.transportation.anl.gov/pdfs/TA/106.pdf](http://www.transportation.anl.gov/pdfs/TA/106.pdf)  
94 y5as53 [www.aluminum.org/Content/NavigationMenu/The\\_Industry/Government\\_Policy/Energy/Energy.htm](http://www.aluminum.org/Content/NavigationMenu/The_Industry/Government_Policy/Energy/Energy.htm)  
94 y2ktgg [www.ssab.com/templates/Ordinary\\_573.aspx](http://www.ssab.com/templates/Ordinary_573.aspx)  
95 6lbrab [www.lindenau-shipyard.de/pages/newsb.html](http://www.lindenau-shipyard.de/pages/newsb.html)  
95 5ctx4k [www.wilhelmsen.com/SiteCollectionDocuments/WW\\_Miljorapport\\_engelsk.pdf](http://www.wilhelmsen.com/SiteCollectionDocuments/WW_Miljorapport_engelsk.pdf)  
95 yqbzlj [www.normanbaker.org.uk/downloads/Supermarkets\\_Report\\_Final\\_Version.doc](http://www.normanbaker.org.uk/downloads/Supermarkets_Report_Final_Version.doc)  
102 yttg7p [budget2007.treasury.gov.uk/page\\_09.htm](http://budget2007.treasury.gov.uk/page_09.htm)  
102 fcqfw [www.mod.uk/DefenceInternet/AboutDefence/Organisation/KeyFactsAboutDefence/DefenceSpending.htm](http://www.mod.uk/DefenceInternet/AboutDefence/Organisation/KeyFactsAboutDefence/DefenceSpending.htm)  
102 2e4fcs [press.homeoffice.gov.uk/press-releases/security-prebudget-report](http://press.homeoffice.gov.uk/press-releases/security-prebudget-report)  
102 33x5kc [www.mod.uk/NR/rdonlyres/95BBA015-22B9-43EF-B2DC-DF14482A590/0/gep\\_200708.pdf](http://www.mod.uk/NR/rdonlyres/95BBA015-22B9-43EF-B2DC-DF14482A590/0/gep_200708.pdf)  
102 35ab2c [www.dasa.mod.uk/natstats/ukds/2007/c1/table103.html](http://www.dasa.mod.uk/natstats/ukds/2007/c1/table103.html)

102 yg5fsj sitesources.worldbank.org/DATASTATISTICS/Resources/GDP.pdf  
102 yfgjna www.sipri.org/contents/milap/milex/mex major spenders.pdf/download  
102 silbae www.wisconsinproject.org/countries/israel/plut.html  
102 yh45h8 www.usec.com/v2001\_02/HTML/Aboutusec swu.asp  
102 t2948 www.world-nuclear.org/info/inf28.htm  
102 2yvwze www.globalsecurity.org/wmd/intro/u-centrifuge.htm  
112 uzek2 www.dti.gov.uk/energy/inform/dukes/  
112 3av4s9 hdr.undp.org/en/statistics/  
112 6frj55 news.independent.co.uk/environment/article2086678.ece  
129 5qhvcb www.tramwayinfo.com/Tramframe.htm?www.tramwayinfo.com/tramways/Articles/Compair2.htm  
134 4qgg8q www.newsweek.com/id/112733/output/print  
135 5o5x5m www.cambridgeenergy.com/archive/2007-02-08/cef08feb2007kemp.pdf  
135 5o5x5m www.cambridgeenergy.com/archive/2007-02-08/cef08feb2007kemp.pdf  
135 5fbeg9 www.cfit.gov.uk/docs/2001/racomp/racomp/pdf/racomp.pdf  
135 679pc www.tfl.gov.uk/assets/downloads/environmental-report-2007.pdf  
136 5cp27j www.eaton.com/EatonCom/ProductsServices/Hybrid/SystemsOverview/HydraulicHLA/index.htm  
137 4wm2w4 www.citroenet.org.uk/passenger-cars/psa/berlingo/berlingo-electrique.html  
137 658ode www.greencarcongress.com/2008/02/mitsubishi-moto.html  
139 czjjo corporate.honda.com/environment/fuel cells.aspx?id=fuel cells fcx  
139 5a3nyx automobiles.honda.com/fcx-clarity/specifications.aspx  
154 yok2nw www.eca.gov.uk/etl/find/ P Heatpumps/detail.htm?ProductID=9868&FromTechnology=S WaterSourcePackaged  
154 2dtx8z www.eca.gov.uk/NR/rdonlyres/6754FE19-C697-49DA-B482-DA9426611ACF/0/ETCL2007.pdf  
154 2fd8ar www.geothermalint.co.uk/commercial/hydroneheatpumpranges.html  
159 5kpjk8 blogs.reuters.com/environment/2008/09/09/a-silver-bullet-or-just-greenwash/  
159 yebuk8 www.dti.gov.uk/energy/sources/coal/index.html  
160 yhx8b www.worldenergy.org/wec-geis/publications/reports/ser/coal/coal.asp  
160 e2m9n www.coal.gov.uk/resources/cleanercoaltechnologies/ucgoverview.cfm  
173 5qntkb www.world-nuclear.org/info/reactors.htm  
174 y3wnzr npc.sarov.ru/english/digest/132004/appendix8.html  
174 32t5zt web.ift.uib.no/~lillestol/Energy Web/EA.html  
174 2qr3yr documents.cern.ch/cgi-bin/setlink?base=generic&categ=public&id=cer-0210391  
174 ynk54y doc.cern.ch/archive/electronic/other/generic/public/cer-0210391.pdf  
174 y17km minerals.usgs.gov/minerals/pubs/mcs/1999/mcs99.pdf  
174 yju4a4 www.uic.com.au/nip67.htm  
175 yeyr7z taylorandfrancis.metapress.com/index/W7241163J23386MG.pdf  
175 4f2ekz www.publications.parliament.uk/pa/cm/199900/cmhansrd/v000505/text/00505w05.htm  
175 2k8y7o www.nei.org/resourcesandstats/  
175 3pvf4j www.sustainableconcrete.org.uk/main.asp?page=210  
175 4r7zpg csereport2005.bluescopesteel.com/  
175 49hcnw www.ace.mmu.ac.uk/Resources/Fact Sheets/Key Stage 4/Waste/pdf/02.pdf  
175 3kduo7 www.esrcsocietytoday.ac.uk/ESRCInfoCentre/facts/UK/index29.aspx?ComponentId=7104&SourcePageId=18130  
176 69vt8r www.osti.gov/energycitations/product.biblio.jsp?osti id=7200593  
176 6oby22 www.osti.gov/energycitations/product.biblio.jsp?osti id=6773271&query id=0  
176 63i2lp pubs.acs.org/cgi-bin/abstract.cgi/jacsat/2002/124/118/abs/ja003472m.html  
176 wncbw www.feasta.org/documents/wells/contents.html?one/horelacy.html  
176 shrin www.enviros.com/vrepository/  
201 2wmuw7 news.yahoo.com/s/ap/20071231/ap on hi te/solar roads; ylt=AuEFouXxz16nP8MRlInTJMms0NUE  
201 2hx6fc www.eirgrid.com/EirGridPortal/DesktpDefault.aspx?tabid=WindGenerationCurve&TreeLinkModID=1451&TreeLinkItemID=247  
201 2199ht www.reuters.com/article/domesticNews/idUSN2749522920080228  
201 3x2kvv www.reuters.com/article/rbssIndustryMaterialsUtilitiesNews/idUSL057816620080305  
202 5o2xgu www.esru.strath.ac.uk/EandE/Web sites/03-04/wind/content/storageavailable.html  
202 2n3pmb www.dynamicdemand.co.uk/pdf fridge test.pdf  
202 2k8h4o www.int.iol.co.za/index.php?art id=vn20080201045821205C890035  
202 5cp27j www.eaton.com/EatonCom/ProductsServices/Hybrid/SystemsOverview/HydraulicHLA/index.htm  
202 2sxlj www.batteryuniversity.com/partone-3.htm  
202 ktd7a www.vrbpower.com/docs/news/2006/20060830-PR-TabburySale-IrelandWindfarm.pdf  
202 627ced www.vrbpower.com/docs/whitepapers/SELtehpaper1.pdf  
202 5fasl7 www.indexmundi.com/en/commodities/minerals/vanadium/vanadium t7.html  
202 2wmuw7 news.yahoo.com/s/ap/20071231/ap on hi te/solar roads; ylt=AuEFouXxz16nP8MRlInTJMms0NUE  
213 5os7dy tinyurl.com/5os7dy  
213 yrw2oo tinyurl.com/yrw2oo  
217 6eoyhg news.bbc.co.uk/1/hi/uk/7215688.stm  
217 yu8em5 www.foe.co.uk/resource/reports/paying for better transport.pdf  
219 3x2cr4 news.bbc.co.uk/1/hi/england/london/6151176.stm  
219 2dd4mz news.bbc.co.uk/1/low/uk politics/6391075.stm  
219 7vlxp www.lse.ac.uk/collections/pressAndInformationOffice/newsAndEvents/archives/2005/IDCard FinalReport.htm  
219 6x4nvu www.statoil.com/statoilcom/svg00990.nsf?opendatabase&artid=F5255D55E1E78319C1256FEF0044704B  
219 39g2wz www.dillinger.de/dh/referenzen/linepipe/01617/index.shtml.en  
219 3ac8sj www.hydro.com/ormentange/en/  
219 y7kg26 www.politics.co.uk/issue-briefs/economy/taxation/tobacco-duty/tobacco-duty-\$366602.htm  
219 r9fcf en.wikipedia.org/wiki/War on Drugs  
221 ysncks news.bbc.co.uk/1/low/uk politics/6205174.stm  
221 2vq59t www.boston.com/news/globe/editorial opinion/oped/articles/2007/08/01/the 63 billion sham/  
221 ym46a9 https://www.cia.gov/cia/publications/factbook/print/xx.html  
221 99bpt www.guardian.co.uk/Iraq/Story/0,2763,1681119,00.html  
221 2bmood www.guardian.co.uk/environment/2007/aug/13/renewableenergy.energy  
221 3g8nn8 image.guardian.co.uk/sys-files/Guardian/documents/2007/08/13/RenewablesTargetDocument.pdf  
221 3jo7q2 www.viewsofscotland.org/library/docs/HoL STC RE Practicalities 04.pdf  
230 2ykgw www.guardian.co.uk/environment/2007/jan/09/travelsenvironmentalimpact.greenpolitics  
230 2nsvx2 www.number-10.gov.uk/output/Page10300.asp  
230 yxq5xk commentisfree.guardian.co.uk/george monbiot/2007/01/an open letter to the prime mi.html  
238 3doaeq web.archive.org/web/20040401165322/members.cox.net/weller43/sunshine.htm  
239 3clw9c knol.google.com/k/-/15x31uzlqeo5n/1  
248 voxbz news.bbc.co.uk/1/low/business/6247371.stm  
248 yofchc news.bbc.co.uk/1/low/uk/7053903.stm  
248 3e28ed www.grida.no/climate/ipcc tar/wg1/118.htm  
258 2bhu35 www.lafn.org/~dave/trans/energy/rail vs auto EE.html

262 6by8x encarta.msn.com/encyclopedia/761553622/Internal-Combustion Engine.html  
262 348whs www.cleangreencar.co.nz/page/prius-petrol-engine  
266 ydt7uk www.nrel.gov/business\_opportunities/pdfs/31235sow.pdf  
266 yaoonz www.windpower.org/en/tour/wres/shear.htm  
267 6o86ec www.londonarray.com/london-array-project-introduction/offshore/  
268 6bkvbn www.timesonline.co.uk/tol/news/world/asia/article687157.ece  
268 yekdaa www.windpower.org/en/stat/betzpro.htm  
268 ymfbsn www.windpower.org/en/tour/wres/powdensi.htm  
268 ypvbvd www.ref.org.uk/images/pdfs/UK Wind Phase 1 web.pdf  
268 wbd8o www.ref.org.uk/energydata.php  
277 33ptcg www.stevfossett.com/html/main\_pages/records.html  
278 6r32hf www.theaustralian.news.com.au/story/0,25197,23003236-23349,00.html  
282 2af5gw www.airliners.net/info/stats.main?id=100  
282 32judd www.wildanimalsonline.com/birds/wanderingalbatross.php  
282 2qbquv news.bbc.co.uk/1/low/sci/tech/6988720.stm  
282 5h6xph www.goldcoastyachts.com/fastcat.htm  
282 4p3yco www.fas.org/man/dod-101/sys/ship/row/rus/903.htm  
288 3ap7lc www.biocap.ca/files/Ont bioenergy OPA Feb23 final.pdf  
288 4hamks www.methanetomarkets.org/resources/landfills/docs/uk If profile.pdf  
296 65h3cb www.dorset-technical-committee.org.uk/reports/U-values-of-elements-Sept-2006.pdf  
298 5dhups www.arct.cam.ac.uk/UCPB/Place.aspx?rid=943658&p=6&ix=8&pid=1&prcid=27&ppid=201  
321 2bqapk wwwphys.murdoch.edu.au/rise/reslab/resfiles/tidal/text.html  
322 r22oz www-materials.eng.cam.ac.uk/mpsite/interactive\_charts/energy-cost/NS6Chart.html  
325 3kmcks www.yourhome.gov.au/technical/index.html  
324 3kmcks www.yourhome.gov.au/technical/index.html  
333 3b7zdf www.communities.gov.uk/publications/planningandbuilding/generalizedlanduse  
336 3av4s9 hdr.undp.org/en/statistics/  
344 f754 www.archive.org/web/web.php

## Literaturverzeichnis

- Aitchison, E. (1996). Methane generation from UK landfill sites and its use as an energy resource. *Energy Conversion and Management*, 37(6/8):1111–1116. doi:doi:10.1016/0196-8904(95)00306-1.  
[www.ingentaconnect.com/content/els/01968904/1996/00000037/00000006/art00306](http://www.ingentaconnect.com/content/els/01968904/1996/00000037/00000006/art00306).
- Amos, W. A. (2004). Updated cost analysis of photobiological hydrogen production from *Chlamydomonas reinhardtii* green algae – milestone completion report. [www.nrel.gov/docs/fy04osti/35593.pdf](http://www.nrel.gov/docs/fy04osti/35593.pdf).
- Anderson, K., Bows, A., Mander, S., Shackley, S., Agnolucci, P., and Ekins, P. (2006). Decarbonising modern societies: Integrated scenarios process and workshops. Technical Report 48, Tyndall Centre. [www.tyndall.ac.uk/research/theme2/final reports/t3 24.pdf](http://www.tyndall.ac.uk/research/theme2/final%20reports/t3%2024.pdf).
- Archer, M. D. and Barber, J. (2004). Photosynthesis and photoconversion. In M. D. Archer and J. Barber, editors, *Molecular to Global Photosynthesis*. World Scientific. ISBN 978-1-86094-256-3. [www.worldscibooks.com/lifesci/p218.html](http://www.worldscibooks.com/lifesci/p218.html).
- Ashworth, W. and Pegg, M. (1986). *The history of the British coal industry. Vol. 5, 1946–1982: the nationalized industry*. Clarendon, Oxford. ISBN 0198282958.
- Asplund, G. (2004). Sustainable energy systems with HVDC transmission. In *Power Engineering Society General Meeting*, volume 2, pages 2299–2303. IEEE. doi:10.1109/PES.2004.1373296. [www.trec-uk.org.uk/reports/HVDC Gunnar Asplund ABB.pdf](http://www.trec-uk.org.uk/reports/HVDC%20Gunnar%20Asplund%20ABB.pdf).
- Asselbergs, B., Bokhorst, J., Harms, R., van Hemert, J., van der Noort, L., ten Velden, C., Vervuurt, R., Wijnen, L., and van Zon, L. (2006). Size does matter – the possibilities of cultivating *Jatropha curcas* for biofuel production in Cambodia. [environmental.scum.org/biofuel/jatropha/](http://environmental.scum.org/biofuel/jatropha/).
- Baer, P. and Mastrandrea, M. (2006). High stakes: Designing emissions pathways to reduce the risk of dangerous climate change. [www.ippr.org/publicationsandreports/](http://www.ippr.org/publicationsandreports/).
- Bahrman, M. P. and Johnson, B. K. (2007). The ABCs of HVDC transmission technology. *IEEE Power and Energy Magazine*, 5(2).
- Baines, J. A., Newman, V. G., Hanna, I. W., Douglas, T. H., Carlyle, W. J., Jones, I. L., Eaton, D. M., and Zeronian, G. (1983). Dinorwig pumped storage scheme. *Institution of Civil Engineers Proc. pt. 1*, 74:635–718.
- Baines, J. A., Newman, V. G., Hanna, I. W., Douglas, T. H., Carlyle, W. J., Jones, I. L., Eaton, D. M., and Zeronian, G. (1986). Dinorwig pumped storage scheme. *Institution of Civil Engineers Proc. pt. 1*, 80:493–536.
- Baker, C., Walbancke, J., and Leach, P. (2006). Tidal lagoon power generation scheme in Swansea Bay. [www.dti.gov.uk/files/file30617.pdf](http://www.dti.gov.uk/files/file30617.pdf). A report on behalf of the Dept. of Trade and Industry and the Welsh Development Agency.
- Bayer Crop Science. (2003). Potential of GM winter oilseed rape to reduce the environmental impact of farming whilst improving farmer incomes. [tinyurl.com/5j99df](http://tinyurl.com/5j99df).
- Bickley, D. T. and Ryrie, S. C. (1982). A two-basin tidal power scheme for the Severn estuary. In *Conf. on new approaches to tidal power*.
- Binder, M., Faltenbacher, M., Kentzler, M., and Schuckert, M. (2006). Clean urban transport for Europe. deliverable D8 final report. [www.fuel-cell-bus-club.com/](http://www.fuel-cell-bus-club.com/).
- Black and Veatch. (2005). The UK tidal stream resource and tidal stream technology. report prepared for the Carbon Trust Marine Energy Challenge. [www.carbontrust.co.uk/technology/technologyaccelerator/tidal stream.htm](http://www.carbontrust.co.uk/technology/technologyaccelerator/tidal%20stream.htm).

- Blunden, L. S. and Bahaj, A. S. (2007). Tidal energy resource assessment for tidal stream generators. *Proc. IMechE*, 221 Part A: 137–146.
- Bonan, G. B. (2002). *Ecological Climatology: Concepts and Applications*. Cambridge Univ. Press. ISBN 9780521804769.
- Boyer, J. S. (1982). Plant productivity and environment. *Science*, 218 (4571):443–448. doi: 10.1126/science.218.4571.443.
- Braslow, A. L. (1999). *A history of suction-type laminar-flow control with emphasis on flight research*. Number 13 in Monographs in Aerospace History. NASA. [www.nasa.gov/centers/dryden/pdf/88792mainLaminar.pdf](http://www.nasa.gov/centers/dryden/pdf/88792mainLaminar.pdf).
- Broecker, W. S. and Kunzig, R. (2008). *Fixing Climate: What Past Climate Changes Reveal About the Current Threat—and How to Counter It*. Hill and Wang. ISBN 0809045028.
- Burnham, A., Wang, M., and Wu, Y. (2007). Development and applications of GREET 2.7 – the transportation vehicle-cycle model. [www.transportation.anl.gov/software/GREET/publications.html](http://www.transportation.anl.gov/software/GREET/publications.html).
- Carbon Trust. (2007). Micro-CHP accelerator – interim report. Technical Report CTC726. [www.carbontrust.co.uk/publications/publicationdetail.htm?productid=CTC726](http://www.carbontrust.co.uk/publications/publicationdetail.htm?productid=CTC726).
- Carlsson, L. (2002). “Classical” HVDC: still continuing to evolve. *Modern Power Systems*.
- Cartwright, D. E., Edden, A. C., Spencer, R., and Vassie, J. M. (1980). The tides of the northeast Atlantic Ocean. *Philos. Trans. R. Soc. Lond. Ser. A*, 298(1436):87–139.
- Catling, D. T. (1966). Principles and practice of train performance applied to London Transport’s Victoria line. Paper 8, Convention on Guided Land Transport (London, 27–28 October 1966).
- Charlier, R. H. (2003a). Sustainable co-generation from the tides: A review. *Renewable and Sustainable Energy Reviews*, 7:187213.
- Charlier, R. H. (2003b). A “sleeper” awakes: tidal current power. *Renewable and Sustainable Energy Reviews*, 7:515529.
- Charney, J. G., Arakawa, A., Baker, D. J., Bolin, B., Dickinson, R. E., Goody, R. M., Leith, C. E., Stommel, H. M., and Wunsch, C. I. (1979). Carbon dioxide and climate: A scientific assessment. [www.nap.edu/catalog.php?recordid=12181](http://www.nap.edu/catalog.php?recordid=12181).
- Chisholm, S. W., Falkowski, P. G., and Cullen, J. J. (2001). Discrediting ocean fertilisation. *Science*, 294(5541):309–310.
- Chitrakar, R., Kanoh, H., Miyai, Y., and Ooi, K. (2001). Recovery of lithium from seawater using manganese oxide adsorbent ( $\text{H}_{1.6}\text{Mn}_{1.6}\text{O}_4$ ) derived from  $\text{Li}_{1.6}\text{Mn}_{1.6}\text{O}_4$ . *Ind. Eng. Chem. Res.*, 40(9):2054–2058. [pubs.acs.org/cgi-bin/abstract.cgi/iecred/2001/40/i09/abs/ie000911h.html](http://pubs.acs.org/cgi-bin/abstract.cgi/iecred/2001/40/i09/abs/ie000911h.html).
- Church, R. A., Hall, A., and Kanefsky, J. (1986). *The history of the British coal industry. Vol. 3, 1830–1913: Victorian pre-eminence*. Clarendon, Oxford. ISBN 0198282842.
- Cohen, B. L. (1983). Breeder reactors: A renewable energy source. *American Journal of Physics*, 51(1):75–76. [sustainablenuclear.org/PADs/pad11983cohen.pdf](http://sustainablenuclear.org/PADs/pad11983cohen.pdf).
- Coley, D. (2001). Emission factors for walking and cycling. [www.centres.ex.ac.uk/cee/publications/reports/91.html](http://www.centres.ex.ac.uk/cee/publications/reports/91.html).
- Committee on Radioactive Waste Management. (2006). Managing our radioactive waste safely. [www.corwm.org.uk/Pages/Current%20Publications/700%20-%20CoRWM%20July%202006%20Recommendations%20to%20Government.pdf](http://www.corwm.org.uk/Pages/Current%20Publications/700%20-%20CoRWM%20July%202006%20Recommendations%20to%20Government.pdf).
- CUTE. (2006). Clean urban transport for Europe. detailed summary of achievements. [www.fuel-cell-bus-club.com/](http://www.fuel-cell-bus-club.com/).
- David, J. and Herzog, H. (2000). The cost of carbon capture. [sequestration.mit.edu/pdf/David and Herzog.pdf](http://sequestration.mit.edu/pdf/David%20and%20Herzog.pdf), presented at the Fifth International Conf. on Greenhouse Gas Control Technologies, Cairns, Australia, August 13 - August 16 (2000).

- Davidson, E. A. and Janssens, I. A. (2006). Temperature sensitivity of soil carbon decomposition and feedbacks to climate change. *Nature*, 440:165–173. doi: doi:10.1038/nature04514. [www.nature.com/nature/journal/v440/n7081/full/nature04514.html](http://www.nature.com/nature/journal/v440/n7081/full/nature04514.html).
- Deffeyes, K. S. and MacGregor, I. D. (1980). World uranium resources. *Scientific American*, pages 66–76.
- Denholm, P., Kulcinski, G. L., and Holloway, T. (2005). Emissions and energy efficiency assessment of baseload wind energy systems. *Environ Sci Technol*, 39(6):1903–1911. ISSN 0013-936X. [www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&listuids=15819254](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&listuids=15819254).
- Denison, R. A. (1997). Life-cycle assessment for paper products. In E. Ellwood, J. Antle, G. Eyring, and P. Schulze, editors, *Wood in Our Future: The Role of Life-Cycle Analysis: Proc. a Symposium*. National Academy Press. ISBN 0309057450. [books.nap.edu/openbook.php?recordid=5734](http://books.nap.edu/openbook.php?recordid=5734).
- Dennis, C. (2006). Solar energy: Radiation nation. *Nature*, 443:23–24. doi: 10.1038/443023a.
- Dept. for Transport. (2007). Transport statistics Great Britain. [www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/](http://www.dft.gov.uk/pgr/statistics/datatablespublications/tsgb/).
- Dept. of Defense. (2008). More fight – less fuel. Report of the Defense Science Board Task Force on DoD Energy Strategy.
- Dept. of Trade and Industry. (2004). DTI Atlas of UK marine renewable energy resources. [www.offshore-sea.org.uk/](http://www.offshore-sea.org.uk/).
- Dept. of Trade and Industry. (2002a). Energy consumption in the United Kingdom. [www.berr.gov.uk/files/file11250.pdf](http://www.berr.gov.uk/files/file11250.pdf).
- Dept. of Trade and Industry. (2002b). Future offshore. [www.berr.gov.uk/files/file22791.pdf](http://www.berr.gov.uk/files/file22791.pdf).
- Dept. of Trade and Industry. (2007). Impact of banding the renewables obligation – costs of electricity production. [www.berr.gov.uk/files/file39038.pdf](http://www.berr.gov.uk/files/file39038.pdf).
- Dessler, A. E. and Parson, E. A. (2006). *The Science and Politics of Global Climate Change – A Guide to the Debate*. Cambridge Univ. Press, Cambridge. ISBN 9780521539418.
- di Prampero, P. E., Cortili, G., Mognoni, P., and Saibene, F. (1979). Equation of motion of a cyclist. *J. Appl. Physiology*, 47:201–206. [jap.physiology.org/cgi/content/abstract/47/1/201](http://jap.physiology.org/cgi/content/abstract/47/1/201).
- Diamond, J. (2004). *Collapse: How Societies Choose to Fail or Succeed*. Penguin.
- E4tech. (2007). A review of the UK innovation system for low carbon road transport technologies. [www.dft.gov.uk/pgr/scienceresearch/technology/ictis/e4techicpdf](http://www.dft.gov.uk/pgr/scienceresearch/technology/ictis/e4techicpdf).
- Eckhartt, D. (1995). Nuclear fuels for low-beta fusion reactors: Lithium resources revisited. *Journal of Fusion Energy*, 14(4):329–341. ISSN 0164-0313 (Print) 1572-9591 (Online). doi: 10.1007/BF02214511. [www.springerlink.com/content/35470543rj8t2gk1/](http://www.springerlink.com/content/35470543rj8t2gk1/).
- Eddington, R. (2006). Transport's role in sustaining the UK's productivity and competitiveness.
- Eden, R. and Bending, R. (1985). Gas/electricity competition in the UK. Technical Report 85/6, Cambridge Energy Research Group, Cambridge.
- Elliott, D. L., Wendell, L. L., and Gower, G. L. (1991). An assessment of windy land area and wind energy potential in the contiguous United States. [www.osti.gov/energycitations/servlets/purl/5252760-ccuOpk/](http://www.osti.gov/energycitations/servlets/purl/5252760-ccuOpk/).
- Energy for Sustainable Development Ltd. (2003). English partnerships sustainable energy review. [www.englishpartnerships.co.uk](http://www.englishpartnerships.co.uk).

- Erdinçler, A. U. and Vesilind, P. A. (1993). Energy recovery from mixed waste paper. *Waste Management & Research*, 11(6):507–513. doi: 10.1177/0734242X9301100605.
- Etheridge, D., Steele, L., Langenfelds, R., Francey, R., Barnola, J.-M., and Morgan, V. (1998). Historical CO<sub>2</sub> records from the Law Dome DE08, DE08-2, and DSS ice cores. In *Trends: A Compendium of Data on Global Change*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Dept. of Energy, Oak Ridge, Tenn., USA. [cdiac.ornl.gov/trends/co2/lawdome.html](http://cdiac.ornl.gov/trends/co2/lawdome.html).
- European Commission. (2007). Concentrating solar power – from research to implementation. [www.solarpaces.org/Library/library.htm](http://www.solarpaces.org/Library/library.htm).
- Evans, D. G. (2007). Liquid transport biofuels – technology status report. [www.nnfcc.co.uk/](http://www.nnfcc.co.uk/).
- Evans, R. K. (2008). An abundance of lithium. [www.worldlithium.com](http://www.worldlithium.com).
- Faber, T. E. (1995). *Fluid dynamics for physicists*. Cambridge Univ. Press, Cambridge.
- Faiman, D., Raviv, D., and Rosenstreich, R. (2007). Using solar energy to arrest the increasing rate of fossil-fuel consumption: The southwestern states of the USA as case studies. *Energy Policy*, 35:567576.
- Fies, B., Peterson, T., and Powicki, C. (2007). Solar photovoltaics – expanding electric generation options. [mydocs.epri.com/docs/SEIG/1016279 Photovoltaic White Paper 1207.pdf](http://mydocs.epri.com/docs/SEIG/1016279%20Photovoltaic%20White%20Paper%201207.pdf).
- Fisher, K., Wallén, E., Laenen, P. P., and Collins, M. (2006). Battery waste management life cycle assessment. [www.defra.gov.uk/environment/waste/topics/batteries/pdf/erm-lcareport0610.pdf](http://www.defra.gov.uk/environment/waste/topics/batteries/pdf/erm-lcareport0610.pdf).
- Flather, R. A. (1976). A tidal model of the north-west European continental shelf. *Memoires Soci ete Royale des Sciences de Liège*, 10 (6):141–164.
- Flinn, M. W. and Stoker, D. (1984). *The history of the British coal industry. Vol. 2, 1700–1830: the Industrial Revolution*. Clarendon, Oxford. ISBN 0198282834.
- Francis, G., Edinger, R., and Becker, K. (2005). A concept for simultaneous wasteland reclamation, fuel production, and socio-economic development in degraded areas in India: Need, potential and perspectives of *Jatropha* plantations. *Natural Resources Forum*, 29(1):12–24. doi: 10.1111/j.1477-8947.2005.00109.x.
- Franklin, J. (2007). Principles of cycle planning. [www.cyclenetwork.org.uk/papers/071119principles.pdf](http://www.cyclenetwork.org.uk/papers/071119principles.pdf).
- Freeston, D. H. (1996). Direct uses of geothermal energy 1995. [geoheat.oit.edu/bulletin/bull17-1/art1.pdf](http://geoheat.oit.edu/bulletin/bull17-1/art1.pdf).
- Gabrielli, G. and von K arm an, T. (1950). What price speed? *Mechanical Engineering*, 72(10).
- Garrett, C. and Cummins, P. (2005). The power potential of tidal currents in channels. *Proc. Royal Society A*, 461(2060):2563–2572. [dx.doi.org/10.1098/rspa.2005.1494](https://doi.org/10.1098/rspa.2005.1494).
- Garrett, C. and Cummins, P. (2007). The efficiency of a turbine in a tidal channel. *J Fluid Mech*, 588:243–251. [journals.cambridge.org/production/action/cjoGetFulltext?fulltextid=1346064](http://journals.cambridge.org/production/action/cjoGetFulltext?fulltextid=1346064).
- Gellings, C. W. and Parmenter, K. E. (2004). Energy efficiency in fertilizer production and use. In C. W. Gellings and K. Blok, editors, *Efficient Use and Conservation of Energy*, Encyclopedia of Life Support Systems. Eolss Publishers, Oxford, UK. [www.eolss.net](http://www.eolss.net).
- German Aerospace Center (DLR) Institute of Technical Thermodynamics Section Systems Analysis and Technology Assessment. (2006). Concentrating solar power for the Mediterranean region. [www.dlr.de/tt/med-csp](http://www.dlr.de/tt/med-csp). Study commissioned by Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany.
- Goodstein, D. (2004). *Out of Gas*. W. W. Norton and Company, New York. ISBN 0393058573.
- Green, J. E. (2006). Civil aviation and the environment – the next frontier for the aerodynamicist. *Aeronautical Journal*, 110(1110): 469–486.

- Grubb, M. and Newbery, D. (2008). Pricing carbon for electricity generation: national and international dimensions. In M. Grubb, T. Jamasb, and M. G. Pollitt, editors, *Delivering a Low Carbon Electricity System: Technologies, Economics and Policy*. Cambridge Univ. Press, Cambridge.
- Gummer, J., Goldsmith, Z., Peck, J., Eggar, T., Hurd, N., Miraj, A., Norris, S., Northcote, B., Oliver, T., Strong, D., Twitchen, K., and Wilkie, K. (2007). Blueprint for a green economy. [www.qualityoflifechallenge.com](http://www.qualityoflifechallenge.com).
- Halkema, J. A. (2006). Wind energy: Facts and fiction. [www.countryguardian.net/halkema-windenergyfactfiction.pdf](http://www.countryguardian.net/halkema-windenergyfactfiction.pdf).
- Hammond, G. and Jones, C. (2006). Inventory of carbon & energy (ICE). [www.bath.ac.uk/mech-eng/sert/embodied/](http://www.bath.ac.uk/mech-eng/sert/embodied/). version 1.5a Beta.
- Hammons, T. J. (1993). Tidal power. *Proc. IEEE*, 8(3):419–433.
- Hansen, J., Sato, M., Kharecha, P., Russell, G., Lea, D., and Siddall, M. (2007). Climate change and trace gases. *Phil.Trans. Royal. Soc. A*, 365:1925–1954. doi: 10.1098/rsta.2007.2052. [pubs.giss.nasa.gov/abstracts/2007/Hansen etal 2.html](http://pubs.giss.nasa.gov/abstracts/2007/Hansen%20etal%20.html).
- Hastings, R. and Wall, M. (2006). *Sustainable Solar Housing: Strategies And Solutions*. Earthscan. ISBN 1844073254.
- Hatcher, J. (1993). *The History of the British Coal Industry: Towards the Age of Coal: Before 1700 Vol 1*. Clarendon Press.
- Heaton, E., Voigt, T., and Long, S. (2004). A quantitative review comparing the yields of two candidate C4 perennial biomass crops in relation to nitrogen, temperature, and water. *Biomass and Bioenergy*, 27:21–30.
- Helm, D., Smale, R., and Phillips, J. (2007). Too good to be true? The UK's climate change record. [www.dieterhelm.co.uk/publications/Carbon record 2007.pdf](http://www.dieterhelm.co.uk/publications/Carbon%20record%202007.pdf).
- Helweg-Larsen, T. and Bull, J. (2007). Zero carbon Britain – an alternative energy strategy. [zerocarbonbritain.com/](http://zerocarbonbritain.com/).
- Herring, J. (2004). Uranium and thorium resource assessment. In C. J. Cleveland, editor, *Encyclopedia of Energy*. Boston Univ., Boston, USA. ISBN 0-12-176480-X.
- Herzog, H. (2003). Assessing the feasibility of capturing CO<sub>2</sub> from the air. [web.mit.edu/coal/working\\_folder/pdfs/Air Capture Feasibility.pdf](http://web.mit.edu/coal/working_folder/pdfs/Air%20Capture%20Feasibility.pdf).
- Herzog, H. (2001). What future for carbon capture and sequestration? *Environmental Science and Technology*, 35:148A–153A. [sequestration.mit.edu/](http://sequestration.mit.edu/).
- Hird, V., Emerson, C., Noble, E., Longfield, J., Williams, V., Goetz, D., Hoskins, R., Paxton, A., and Dupee, G. (1999). Still on the road to ruin? An assessment of the debate over the unnecessary transport of food, five years on from the food miles report.
- Hodgson, P. (1999). *Nuclear Power, Energy and the Environment*. Imperial College Press.
- Hopfield, J. J. and Gollub, J. (1978). Introduction to solar energy. [www.inference.phy.cam.ac.uk/sustainable/solar/HopfieldGollub78/scan.html](http://www.inference.phy.cam.ac.uk/sustainable/solar/HopfieldGollub78/scan.html).
- Horie, H., Tanjo, Y., Miyamoto, T., and Koga, Y. (1997). Development of a lithium-ion battery pack system for EV. *JSAE Review*, 18 (3):295–300.
- HPTCJ. (2007). Heat pumps: Long awaited way out of the global warming. [www.hptcj.or.jp/about\\_e/contribution/index.html](http://www.hptcj.or.jp/about_e/contribution/index.html).
- Indermuhle, A., Stocker, T., Joos, F., Fischer, H., Smith, H., Wahlen, M., Deck, B., Mastroianni, D., Tschumi, J., Blunier, T., Meyer, R., and Stauffer, B. (1999). Holocene carbon-cycle dynamics based on CO<sub>2</sub> trapped in ice at Taylor Dome, Antarctica. *Nature*, 398:121–126.



- International Energy Agency. (2001). Things that go blip in the night – standby power and how to limit it. [www.iea.org/textbase/nppdf/free/2000/blipinthenight01.pdf](http://www.iea.org/textbase/nppdf/free/2000/blipinthenight01.pdf).
- Jackson, P. and Kershaw, S. (1996). Reducing long term methane emissions resulting from coal mining. *Energy Conversion and Management*, 37(6-8):801–806. doi: 10.1016/0196-8904(95)00259-6.
- Jevons, W. S. (1866). *The Coal Question; An Inquiry concerning the Progress of the Nation, and the Probable Exhaustion of our Coal-mines*. Macmillan and Co., London, second edition. [oll.libertyfund.org/](http://oll.libertyfund.org/).
- Jones, I. S. F. (2008). The production of additional marine protein by nitrogen nourishment. [www.oceannourishment.com/files/Jc08.pdf](http://www.oceannourishment.com/files/Jc08.pdf).
- Jones, P. M. S. (1984). Statistics and nuclear energy. *The Statistician*, 33(1):91–102. [www.jstor.org/pss/2987717](http://www.jstor.org/pss/2987717).
- Judd, B., Harrison, D. P., and Jones, I. S. F. (2008). Engineering ocean nourishment. In *World Congress on Engineering WCE 2008*, pages 1315–1319. IAENG. ISBN 978-988-98671-9-5.
- Juniper, T. (2007). *How Many Lightbulbs does it take To Change a Planet?* Quercus, London.
- Kammen, D. M. and Hassenzahl, D. M. (1999). *Should We Risk It? Exploring Environmental, Health, and Technological Problem Solving*. Princeton Univ. Press.
- Kaneko, T., Shimada, M., Kujiraoka, S., and Kojima, T. (2004). Easy maintenance and environmentally-friendly train traction system. *Hitachi Review*, 53(1):15–19. [www.hitachi.com/ICSFiles/afieldfile/2004/05/25/r2004\\_01\\_103.pdf](http://www.hitachi.com/ICSFiles/afieldfile/2004/05/25/r2004_01_103.pdf).
- Keeling, C. and Whorf, T. (2005). Atmospheric CO<sub>2</sub> records from sites in the SIO air sampling network. In *Trends: A Compendium of Data on Global Change*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Dept. of Energy, Oak Ridge, Tenn., USA.
- Keith, D. W., Ha-Duong, M., and Stolaroff, J. K. (2005). Climate strategy with CO<sub>2</sub> capture from the air. *Climatic Change*. doi: 10.1007/s10584-005-9026-x. [www.ucalgary.ca/~keith/papers/51.Keith.2005.ClimateStrat WithAirCapture.e.pdf](http://www.ucalgary.ca/~keith/papers/51.Keith.2005.ClimateStrat WithAirCapture.e.pdf).
- King, J. (2007). The King review of low-carbon cars. Part I: the potential for CO<sub>2</sub> reduction. [hm-treasury.gov.uk/king](http://hm-treasury.gov.uk/king).
- King, J. (2008). The King review of low-carbon cars. Part II: recommendations for action. [hm-treasury.gov.uk/king](http://hm-treasury.gov.uk/king).
- Koomey, J. G. (2007). Estimating total power consumption by servers in the US and the world. [blogs.business2.com/greenwombat/files/serverpowerusecomplete-v3.pdf](http://blogs.business2.com/greenwombat/files/serverpowerusecomplete-v3.pdf).
- Kowalik, Z. (2004). Tide distribution and tapping into tidal energy. *Oceanologia*, 46(3):291–331.
- Kuehr, R. (2003). *Computers and the Environment: Understanding and Managing their Impacts (Eco-Efficiency in Industry and Science)*. Springer. ISBN 1402016808.
- Lackner, K. S., Grimes, P., and Ziock, H.-J. (2001). Capturing carbon dioxide from air. [www.netl.doe.gov/publications/proceedings/01/carbon\\_seq/7b1.pdf](http://www.netl.doe.gov/publications/proceedings/01/carbon_seq/7b1.pdf). Presented at First National Conf. on Carbon Sequestration, Washington DC.
- Lawson, B. (1996). Building materials, energy and the environment: Towards ecologically sustainable development.
- Layzell, D. B., Stephen, J., and Wood, S. M. (2006). Exploring the potential for biomass power in Ontario. [www.biocap.ca/files/Ont\\_bioenergy\\_OPA\\_Feb23\\_final.pdf](http://www.biocap.ca/files/Ont_bioenergy_OPA_Feb23_final.pdf).

- Le Quéré, C., Rödenbeck, C., Buitenhuis, E., Conway, T. J., Langenfelds, R., Gomez, A., Labuschagne, C., Ramonet, M., Nakazawa, T., Metz, N., Gillett, N., and Heimann, M. (2007). Saturation of the southern ocean CO<sub>2</sub> sink due to recent climate change. *Science*, 316:1735–1738. doi: 10.1126/science.1136188. [lgmacweb.env.uea.ac.uk/e415/publications.html](http://lgmacweb.env.uea.ac.uk/e415/publications.html).
- Lemofouet-Gatsi, S. (2006). *Investigation and optimisation of hybrid electricity storage systems based on compressed air and supercapacitors*. PhD thesis, EPFL. [library.epfl.ch/theses/?nr=3628](http://library.epfl.ch/theses/?nr=3628).
- Lemofouet-Gatsi, S. and Rufer, A. (2005). Hybrid energy systems based on compressed air and supercapacitors with maximum efficiency point tracking. [www.epfl.ch/publications/lemofouet\\_rufer\\_epe\\_05.pdf](http://www.epfl.ch/publications/lemofouet_rufer_epe_05.pdf).
- Lomborg, B. (2001). *The skeptical environmentalist: measuring the real state of the world*. Cambridge Univ. Press, Cambridge. ISBN 0-521-80447-7.
- Mabee, W. E., Saddler, J. N., Nielsen, C., Henrik, L., and Steen Jensen, E. (2006). Renewable-based fuels for transport. [www.risoe.dk/rispubl/Energy-report5/ris-r-1557\\_49-52.pdf](http://www.risoe.dk/rispubl/Energy-report5/ris-r-1557_49-52.pdf). Riso Energy Report 5.
- MacDonald, J. M. (2008). The economic organization of US broiler production. [www.ers.usda.gov/Publications/EIB38/EIB38.pdf](http://www.ers.usda.gov/Publications/EIB38/EIB38.pdf). Economic Information Bulletin No. 38. Economic Research Service, US Dept. of Agriculture.
- MacDonald, P., Stedman, A., and Symons, G. (1992). The UK geothermal hot dry rock R&D programme. In *Seventeenth Workshop on Geothermal Reservoir Engineering*.
- MacKay, D. J. C. (2007a). Enhancing electrical supply by pumped storage in tidal lagoons. [www.inference.phy.cam.ac.uk/mackay/abstracts/Lagoons.html](http://www.inference.phy.cam.ac.uk/mackay/abstracts/Lagoons.html).
- MacKay, D. J. C. (2007b). Under-estimation of the UK tidal resource. [www.inference.phy.cam.ac.uk/mackay/abstracts/TideEstimate.html](http://www.inference.phy.cam.ac.uk/mackay/abstracts/TideEstimate.html).
- MacLeay, I., Harris, K., and Michaels, C. (2007). Digest of United Kingdom energy statistics 2007. [www.berr.gov.uk](http://www.berr.gov.uk).
- Malanima, P. (2006). Energy crisis and growth 1650–1850: the European deviation in a comparative perspective. *Journal of Global History*, 1:101–121. doi: 10.1017/S1740022806000064.
- Marland, G., Boden, T., and Andres, R. J. (2007). Global, regional, and national CO<sub>2</sub> emissions. In *Trends: A Compendium of Data on Global Change*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Dept. of Energy, Oak Ridge, Tenn., USA. [cdiac.ornl.gov/trends/emis/tre\\_glob.htm](http://cdiac.ornl.gov/trends/emis/tre_glob.htm).
- Massachusetts Institute of Technology. (2006). The future of geothermal energy. [geothermal.inel.gov/publications/future\\_of\\_geothermal\\_energy.pdf](http://geothermal.inel.gov/publications/future_of_geothermal_energy.pdf).
- McBride, J. P., Moore, R. E., Witherspoon, J. P., and Blanco, R. E. (1978). Radiological impact of airborne effluents of coal and nuclear plants. *Science*, 202(4372):1045–1050. doi: 10.1126/science.202.4372.1045.
- Meadows, M. (1996). Estimating landfill methane emissions. *Energy Conversion and Management*, 37(6-8):1099–1104. doi: 10.1016/0196-8904(95)00304-5.
- B. Metz, O. Davidson, H. de Coninck, M. Loos, and L. Meyer, editors. (2005). *Special Report on Carbon Dioxide Capture and Storage*. Cambridge Univ. Press, Cambridge. ISBN 978-0-521-68551-1. [www.ipcc.ch/ipccreports/srccs.htm](http://www.ipcc.ch/ipccreports/srccs.htm).
- Mills, D. R. and Lièvre, P. L. (2004). Competitive solar electricity. [www.ausra.com/pdfs/PaperCompetitiveSolarElectricity.pdf](http://www.ausra.com/pdfs/PaperCompetitiveSolarElectricity.pdf).

- Mills, D. R. and Morgan, R. G. (2008). Solar thermal electricity as the primary replacement for coal and oil in US generation and transportation. [www.ausra.com/technology/reports.html](http://www.ausra.com/technology/reports.html).
- Mills, D. R. and Morrison, G. L. (2000). Compact Linear Fresnel Reflector solar thermal powerplants. *Solar Energy*, 68(3):263–283. doi: 10.1016/S0038-092X(99)00068-7.
- Mills, D. R., Le Lièvre, P., and Morrison, G. L. (2004). First results from Compact Linear Fresnel Reflector installation. [solarheatpower.veritel.com.au/MILLS CLFR ANZSES FINAL.pdf](http://solarheatpower.veritel.com.au/MILLS_CLFR_ANZSES_FINAL.pdf).
- Mindl, P. (2003). Hybrid drive super-capacitor energy storage calculation. [www3.fs.cvut.cz/web/fileadmin/documents/12241-BOZEK/publikace/2003/Supcap6 EDPE.pdf](http://www3.fs.cvut.cz/web/fileadmin/documents/12241-BOZEK/publikace/2003/Supcap6 EDPE.pdf).
- Mollison, D. (1986). Wave climate and the wave power resource. In D. Evans and A. de O. Falcao, editors, *Hydrodynamic of Ocean Wave-Energy Utilization*, pages 133–156, Berlin. Springer. [www.ma.hw.ac.uk/~denis/wave.html](http://www.ma.hw.ac.uk/~denis/wave.html).
- Mollison, D. (1991). The UK wave power resource. In *Wave Energy (Institution of Mechanical Engineers – Seminar)*, pages 1–6. John Wiley & Sons. [www.ma.hw.ac.uk/~denis/wave.html](http://www.ma.hw.ac.uk/~denis/wave.html).
- Mollison, D., Buneman, O. P., and Salter, S. H. (1976). Wave power availability in the NE Atlantic. *Nature*, 263(5574):223–226. [www.ma.hw.ac.uk/~denis/wave.html](http://www.ma.hw.ac.uk/~denis/wave.html).
- Monteith, J. L. (1977). Climate and the efficiency of crop production in Britain. *Philos. Trans. R. Soc. London*, 281:277–294.
- National Bureau of Economic Research. (2001). NBER macrohistory database. [www.nber.org/databases/macrophistory/contents/](http://www.nber.org/databases/macrophistory/contents/).
- Neftel, A., Friedli, H., Moor, E., Ltscher, H., Oeschger, H., Siegenthaler, U., and Stauffer, B. (1994). Historical CO<sub>2</sub> record from the Siple station ice core. In *Trends: A Compendium of Data on Global Change*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, US Dept. of Energy, Oak Ridge, Tenn., USA. [cdiac.ornl.gov/trends/co2/siple.htm](http://cdiac.ornl.gov/trends/co2/siple.htm).
- Netherlands Environmental Assessment Agency. (2006). History database of the global environment. [www.mnp.nl/hyde/](http://www.mnp.nl/hyde/).
- Nickol, C. L. (2008). Silent Aircraft Initiative concept risk assessment. [ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20080012497\\_2008011089.pdf](http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20080012497_2008011089.pdf).
- Norrström, H. (1980). Low waste technology in pulp and paper industries. *Pure & Appl. Chem.*, 52:1999–2004. [www.iupac.org/publications/pac/1980/pdf/5208x1999.pdf](http://www.iupac.org/publications/pac/1980/pdf/5208x1999.pdf).
- Nuttall, W. J. (2004). *Nuclear Renaissance*. Institute of Physics Publishing. OECD Nuclear Energy Agency. (2006). *Forty Years of Uranium Resources, Production and Demand in perspective*. OECD Publishing. ISBN 9264028064. [books.google.com/books?id=HIT1o985uKYC](http://books.google.com/books?id=HIT1o985uKYC).
- Ongena, J. and Van Oost, G. (2006). Energy for future centuries. Will fusion be an inexhaustible, safe and clean energy source? [www.fusie-energie.nl/artikelen/ongena.pdf](http://www.fusie-energie.nl/artikelen/ongena.pdf).
- Oswald, J., Raine, M., and Ashraf-Ball, H. (2008). Will British weather provide reliable electricity? *Energy Policy*, in press. doi: 10.1016/j.enpol.2008.04.03.
- Price, R. and Blaise, J. (2002). Nuclear fuel resources: Enough to last? [www.ingentaconnect.com/content/oeecd/16059581/2002/00000020/00000002/6802021e](http://www.ingentaconnect.com/content/oeecd/16059581/2002/00000020/00000002/6802021e).
- Putt, R. (2007). Algae as a biodiesel feedstock: A feasibility assessment. [www.eere.energy.gov/afdc/pdfs/algae.pdf](http://www.eere.energy.gov/afdc/pdfs/algae.pdf).
- Quayle, R. G. and Changery, M. J. (1981). Estimates of coastal deepwater wave energy potential for the world. *Oceans*, 13:903–907. [ieeexplore.ieee.org/iel6/8271/25889/01151590.pdf](http://ieeexplore.ieee.org/iel6/8271/25889/01151590.pdf).
- Rice, T. and Owen, P. (1999). *Decommissioning the Brent Spar*. Taylor and Francis.

- Richards, B. S. and Watt, M. E. (2007). Permanently dispelling a myth of photovoltaics via the adoption of a new net energy indicator. *Renewable and Sustainable Energy Reviews*, 11(1):162-172. [www.sciencedirect.com/science/journal/13640321](http://www.sciencedirect.com/science/journal/13640321).
- Richards, H. G., Parker, R. H., Green, A. S. P., Jones, R. H., Nicholls, J. D. M., Nicol, D. A. C., Randall, M. M., Richards, S., Stewart, R. C., and Willis-Richards, J. (1994). The performance and characteristics of the experimental hot dry rock geothermal reservoir at Rosemanowes, Cornwall (1985-1988). *Geothermics*, 23(2):73-109. ISSN 0375-6505.
- Ridley, T. M. and Catling, D. T. (1982). The energy implications of the design of mass transit railways. Presented at Tunnelling '82 (Third International Symposium), Brighton.
- Rogner, H.-H. (2000). Energy resources. In *World Energy Assessment – Energy and the challenge of sustainability*, chapter 5. UNDP, New York, USA. [www.undp.org/energy/activities/wea/draft-start.html](http://www.undp.org/energy/activities/wea/draft-start.html).
- Ross, A. (2008). The Loch Sloy hydro-electric scheme 1950. [www.arrocharheritage.com/LochSloyHydroElectricScheme.htm](http://www.arrocharheritage.com/LochSloyHydroElectricScheme.htm).
- Royal Commission on Environmental Pollution. (2004). Biomass as a renewable energy source. [www.rcep.org.uk](http://www.rcep.org.uk).
- Royal Society working group on biofuels. (2008). Sustainable biofuels: prospects and challenges. [royalsociety.org](http://royalsociety.org). Policy document 01/08.
- Rubbia, C., Rubio, J., Buono, S., Carminati, F., Fiétier, N., Galvez, J., Gelès, C., Kadi, Y., Klapisch, R., Mandrillon, P., Revol, J., and Roche, C. (1995). Conceptual design of a fast neutron operated high power energy amplifier. Technical Report CERN/AT/95-44 (ET), European Organization for Nuclear Research. [doc.cern.ch/archive/electronic/other/generic/public/cer-0210391.pdf](http://doc.cern.ch/archive/electronic/other/generic/public/cer-0210391.pdf).
- Ruddell, A. (2003). Investigation on storage technologies for intermittent renewable energies: Evaluation and recommended r&d strategy. [www.itpower.co.uk/investire/pdfs/flywheelrep.pdf](http://www.itpower.co.uk/investire/pdfs/flywheelrep.pdf).
- Rydh, C. J. and Karlström, M. (2002). Life cycle inventory of recycling portable nickel-cadmium batteries. *Resources, Conservation and Recycling*, 34:289-309. [homepage.te.hik.se/personal/tryca/battery/abstracts.htm](http://homepage.te.hik.se/personal/tryca/battery/abstracts.htm).
- Salter, S. H. (2005). Possible under-estimation of the UK tidal resource. [www.berr.gov.uk/files/file31313.pdf](http://www.berr.gov.uk/files/file31313.pdf). Submission for DTI Energy Review.
- Schellnhuber, H. J., Cramer, W., Nakicenovic, N., Wigley, T., and Yohe, G. (2006). *Avoiding Dangerous Climate Change*. Cambridge Univ. Press. [www.defra.gov.uk/environment/climatechange/internat/pdf/avoid-dangercc.pdf](http://www.defra.gov.uk/environment/climatechange/internat/pdf/avoid-dangercc.pdf).
- Schiermeier, Q., Tollefson, J., Scully, T., Witze, A., and Morton, O. (2008). Energy alternatives: Electricity without carbon. *Nature*, 454:816-823. doi: 10.1038/454816a.
- Schlaich, J., Bergemann, 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. [www.sbp.de/de/html/contact/download/TheSolarUpdraft.pdf](http://www.sbp.de/de/html/contact/download/TheSolarUpdraft.pdf).
- Schlaich, J., Schiel, W. (2001) *Solar Chimneys*. In R.A. Meyers(ed) Encyclopedia of Physical Science and Technology, 3<sup>rd</sup> Edition, Academic Press, London. ISBN 0-12-227410-5. [www.solarmillennium.de/pdf/SolarCh.pdf](http://www.solarmillennium.de/pdf/SolarCh.pdf).
- Schmer, M. R., Vogel, K. P., Mitchell, R. B., and Perrin, R. K. (2008). Net energy of cellulosic ethanol from switchgrass. *PNAS*, 105(2):464-469. doi: 10.1073/pnas.0704767105. [www.pnas.org/cgi/content/full/105/2/464](http://www.pnas.org/cgi/content/full/105/2/464).

- Schuiling, R. and Krijgsman, P. (2006). Enhanced weathering; an effective and cheap tool to sequester CO<sub>2</sub>. *Climatic Change*, 74(1-3): 349–354.
- S. I. Schwartz, editor. (1998). *Atomic Audit: Costs and Consequences of US Nuclear Weapons Since 1940*. Brookings Institution Press, Washington, D.C.  
[www.brook.edu/fp/projects/nucwcost/schwartz.htm](http://www.brook.edu/fp/projects/nucwcost/schwartz.htm).
- Seko, N., Katakai, A., Hasegawa, S., Tamada, M., Kasai, N., Takeda, H., Sugo, T., and Saito, K. (2003). Aquaculture of uranium in seawater by a fabric-adsorbent submerged system. *Nuclear Technology*, 144(2):274–278.
- Shapouri, H., Duffield, J. A., and Graboski, M. S. (1995). Estimating the net energy balance of corn ethanol. [www.ethanol-gec.org/corn\\_eth.htm](http://www.ethanol-gec.org/corn_eth.htm). United States Dept. of Agriculture Agricultural Economic Report Number 721.
- Sharman, H. (2005). Why wind power works for Denmark. *Proc. ICE Civil Engineering*, 158:6672. [incoteco.com/upload/CIEN.158.2.66.pdf](http://incoteco.com/upload/CIEN.158.2.66.pdf).
- Shaw, T. L. and Watson, M. J. (2003a). The effects of pumping on the energy potential of a tidal power barrage. *Engineering Sustainability*, 156(2):111–117. ISSN 1478-4637. doi: 10.1680/ensu.156.2.111.37018.
- Shaw, T. L. and Watson, M. J. (2006). Flexible power generation from a Severn barrage. [www.dti.gov.uk/files/file31332.pdf](http://www.dti.gov.uk/files/file31332.pdf).
- Shaw, T. L. and Watson, M. J. (2003b). Flexible power generation from the tides. *Engineering Sustainability*, 156(2):119–123. ISSN 1478-4629.
- Shepherd, D. W. (2003). *Energy Studies*. Imperial College Press.
- Shockley, W. and Queisser, H. J. (1961). Detailed balance limit of efficiency of  $p-n$  junction solar cells. *Journal of Applied Physics*, 32 (3):510–519.
- Shyy, W., Berg, M., and Ljungqvist, D. (1999). Flapping and flexible wings for biological and micro air vehicles. *Progress in Aerospace Sciences*, 35(5):455–505.
- Siegenthaler, U., Monnin, E., Kawamura, K., Spahni, R., Schwander, J., Stauffer, B., Stocker, T., Barnola, J.-M., and Fischer, H. (2005). Supporting evidence from the EPICA Dronning Maud Land ice core for atmospheric CO<sub>2</sub> changes during the past millennium. *Tellus B*, 57(1):51–57. doi: 10.1111/j. 1600-0889.2005.00131.x.  
<ftp://ftp.ncdc.noaa.gov/pub/data/paleo/icecore/antarctica/maud/edml-co2-2005.xls>.
- Sims, R., Schock, R., Adegbulugbe, A., Fenhann, J., Konstantinaviciute, I., Moomaw, W., Nimir, H., Schlamadinger, B., Torres-Martinez, J., Turner, C., Uchiyama, Y., Vuori, S., Wamukonya, N., and Zhang, X. (2007). Energy supply. In B. Metz, O. Davidson, P. Bosch, R. Dave, and L. Meyer, editors, *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge Univ. Press, Cambridge.  
[www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter4.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter4.pdf).
- Sinden, G. (2005). Variability of UK marine resources. Technical report, Oxford.  
[www.carbontrust.co.uk/NR/rdonlyres/EC293061-611D-4BC8-A75C-9F84138184D3/0/variability\\_uk\\_marine\\_energy\\_resources.pdf](http://www.carbontrust.co.uk/NR/rdonlyres/EC293061-611D-4BC8-A75C-9F84138184D3/0/variability_uk_marine_energy_resources.pdf).
- Sleath, J. F. A. (1984). *Sea bed mechanics*. Wiley, New York. ISBN 047189091X.
- Socolow, R. (2006). Stabilization wedges: An elaboration of the concept. In H. J. Schellnhuber, W. Cramer, N. Nakicenovic, T. Wigley, and G. Yohe, editors, *Avoiding Dangerous Climate Change*. Cambridge Univ. Press.
- Steinberg, M. and Dang, V. (1975). Preliminary design and analysis of a process for the extraction of lithium from seawater. Technical Report 20535-R, Brookhaven National Lab., Upton, N.Y.(USA). [www.osti.gov/energycitations/product.biblio.jsp?osti\\_id=7351225](http://www.osti.gov/energycitations/product.biblio.jsp?osti_id=7351225). Presented at Symposium on United States lithium resources and requirements by the year 2000; 22 Jan 1976; Lakewood, CO, USA.

- Stern, N. (2007). *The Economics of Climate Change*. Cambridge Univ. Press, Cambridge.
- Subcommittee on Poultry Nutrition, National Research Council. (1994). *Nutrient Requirements of Poultry*. National Academy Press, Washington, ninth revised edition edition. [www.nap.edu/openbook.php?isbn=0309048923](http://www.nap.edu/openbook.php?isbn=0309048923).
- Supple, B. (1987). *The history of the British coal industry. Vol. 4, 1913–1946: the political economy of decline*. Clarendon, Oxford. ISBN 019828294X.
- Taylor, G. I. (1920). Tidal friction in the Irish Sea. *R. Soc. Lond. Ser. A*, 220:1–33. doi: 10.1098/rsta.1920.0001.
- Taylor, G. K. (2002a). Are you missing the boat? the ekranoplan in the 21st century – its possibilities and limitations. [www.hypercraftassociates.com/areyoumissingtheboat2002.pdf](http://www.hypercraftassociates.com/areyoumissingtheboat2002.pdf). Presented at the 18th Fast Ferry Conf., Nice, France.
- Taylor, S. J. (2002b). The Severn barrage – definition study for a new appraisal of the project. [www.dti.gov.uk/files/file15363.pdf](http://www.dti.gov.uk/files/file15363.pdf). ETSU REPORT NO. T/09/00212/00/REP.
- Tennekes, H. (1997). *The Simple Science of Flight*. MIT Press.
- Thakur, P. C., Little, H. G., and Karis, W. G. (1996). Global coalbed methane recovery and use. *Energy Conversion and Management*, 37 (6/8):789–794.
- The Earthworks Group. (1989). *50 Simple things you can do to save the earth*. The Earthworks Press, Berkeley, California. ISBN 0-929634-06-3.
- Treloar, G. J., Love, P. E. D., and Crawford, R. H. (2004). Hybrid life-cycle inventory for road construction and use. *J. Constr. Engrg. and Mgmt.*, 130(1):43–49.
- Trieb, F. and Knies, G. (2004). A renewable energy and development partnership EU-ME-NA for large scale solar thermal power and desalination in the Middle East and in North Africa. [www.gezen.nl/wordpress/wp-content/uploads/2006/09/sanaa-paper-and-annex\\_15-04-2004.pdf](http://www.gezen.nl/wordpress/wp-content/uploads/2006/09/sanaa-paper-and-annex_15-04-2004.pdf).
- Tsuruta, T. (2005). Removal and recovery of lithium using various microorganisms. *Journal of Bioscience and Bioengineering*, 100(5):562–566. [www.jstage.jst.go.jp/article/jbb/100/5/100\\_562/article](http://www.jstage.jst.go.jp/article/jbb/100/5/100_562/article).
- Turkenburg, W. C. (2000). Renewable energy technologies. In *World Energy Assessment – Energy and the challenge of sustainability*, chapter 7. UNDP, New York, USA. [www.undp.org/energy/activities/wea/draft-start.html](http://www.undp.org/energy/activities/wea/draft-start.html).
- Ucuncu, A. (1993). Energy recovery from mixed paper waste. Technical report, NC, USA. [www.p2pays.org/ref/11/10059.pdf](http://www.p2pays.org/ref/11/10059.pdf).
- Van den Berg, G. (2004). Effects of the wind profile at night on wind turbine sound. *Journal of Sound and Vibration*, 277:955–970. [www.nowap.co.uk/docs/windnoise.pdf](http://www.nowap.co.uk/docs/windnoise.pdf).
- van Voorthuysen, E. d. M. (2008). Two scenarios for a solar world economy. *Int. J. Global Environmental Issues*, 8(3):233247.
- Ventour, L. (2008). The food we waste. [news.bbc.co.uk/1/shared/bsp/hi/pdfs/foodwewaste\\_fullreport08\\_05\\_08.pdf](http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/foodwewaste_fullreport08_05_08.pdf).
- Warwick HRI. (2007). Direct energy use in agriculture: opportunities for reducing fossil fuel inputs. [www2.warwick.ac.uk/fac/sci/whri/research/climatechange/energy/direct\\_energy\\_use\\_in\\_agriculture.pdf](http://www2.warwick.ac.uk/fac/sci/whri/research/climatechange/energy/direct_energy_use_in_agriculture.pdf).
- Water UK. (2006). Towards sustainability 2005–2006. [www.water.org.uk/home/policy/reports/sustainability\\_indicators-2005-06/towards-sustainability-2005-2006.pdf](http://www.water.org.uk/home/policy/reports/sustainability_indicators-2005-06/towards-sustainability-2005-2006.pdf).
- Watson, J., Hertin, J., Randall, T., and Gough, C. (2002). Renewable energy and combined heat and power resources in the UK. Technical report. [www.tyndall.ac.uk/publications/working\\_papers/wp22.pdf](http://www.tyndall.ac.uk/publications/working_papers/wp22.pdf). Working Paper 22.
- Wavegen. (2002). Islay Limpet project monitoring – final report. [www.wavegen.co.uk/pdf/art.1707.pdf](http://www.wavegen.co.uk/pdf/art.1707.pdf).
- Weber, C. L. and Matthews, H. S. (2008). Food-miles and the relative climate impacts of food choices in the United States. *Environ. Sci. Technol.*, 42(10):3508–3513. doi: 10.1021/es702969f.

- Weightman, M. (2007). Report of the investigation into the leak of dissolver product liquor at the Thermal Oxide Reprocessing Plant (THORP), Sellafield, notified to HSE on 20 April 2005. [www.hse.gov.uk/nuclear/thorpreport.pdf](http://www.hse.gov.uk/nuclear/thorpreport.pdf).
- Wiedmann, T., Wood, R., Lenzen, M., Minx, J., Guan, D., and Barrett, J. (2008). Development of an embedded carbon emissions indicator producing a time series of input-output tables and embedded carbon dioxide emissions for the UK by using a MRIO data optimisation system. [randd.defra.gov.uk/Document.aspx?Document=EVO2033\\_7331\\_FRP.pdf](http://randd.defra.gov.uk/Document.aspx?Document=EVO2033_7331_FRP.pdf).
- Williams, D. and Baverstock, K. (2006). Chernobyl and the future: Too soon for a final diagnosis. *Nature*, 440:993–994. doi:10.1038/440993a.
- Williams, E. (2004). Energy intensity of computer manufacturing: hybrid assessment combining process and economic input-output methods. *Environ Sci Technol*, 38(22):6166–6174. ISSN 0013-936X. [\url{www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=15573621}](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15573621).
- Williams, R. H. (2000). Advanced energy supply technologies. In *World Energy Assessment – Energy and the challenge of sustainability*, chapter 8. UNDP, New York, USA. [www.undp.org/energy/activities/wea/draft-start.html](http://www.undp.org/energy/activities/wea/draft-start.html).
- Wilson, E. M. and Balls, M. (1990). Tidal power generation. In P. Novak, editor, *Developments in Hydraulic Engineering*, chapter 2. Taylor & Francis. ISBN 185166095X.
- Wood, B. (1985). Economic district heating from existing turbines. *Institution of Civil Engineers Proc. pt. 1*, 77:27–48.
- Yaros, B. (1997). Life-cycle thinking for wood and paper products. In E. Ellwood, J. Antle, G. Eyring, and P. Schulze, editors, *Wood in Our Future: The Role of Life-Cycle Analysis: Proc. a Symposium*.
- Zaleski, C. P. (2005). The future of nuclear power in France, the EU and the world for the next quarter-century. [www.npec-web.org/Essays/Essay050120Zalenski-FutureofNuclearPower.pdf](http://www.npec-web.org/Essays/Essay050120Zalenski-FutureofNuclearPower.pdf). [tinyurl.com/32louu](http://tinyurl.com/32louu).
- Zhu, X.-G., Long, S. P., and Ort, D. R. (2008). What is the maximum efficiency with which photosynthesis can convert solar energy into biomass? *Current Opinion in Biotechnology*, 19:153159.

## Über den Autor

### *Sustainable Energy – without the hot air*

David JC MacKay

#### About the author

David MacKay is a Professor in the Department of Physics at the University of Cambridge. He studied Natural Sciences at Cambridge and then obtained his PhD in Computation and Neural Systems at the California Institute of Technology. He returned to Cambridge as a Royal Society research fellow at Darwin College. He is internationally known for his research in machine learning, information theory, and communication systems, including the invention of Dasher, a software interface that enables efficient communication in any language with any muscle. He has taught Physics in Cambridge since 1995. Since 2005, he has devoted much of his time to public teaching about energy. He is a member of the World Economic Forum Global Agenda Council on Climate Change.

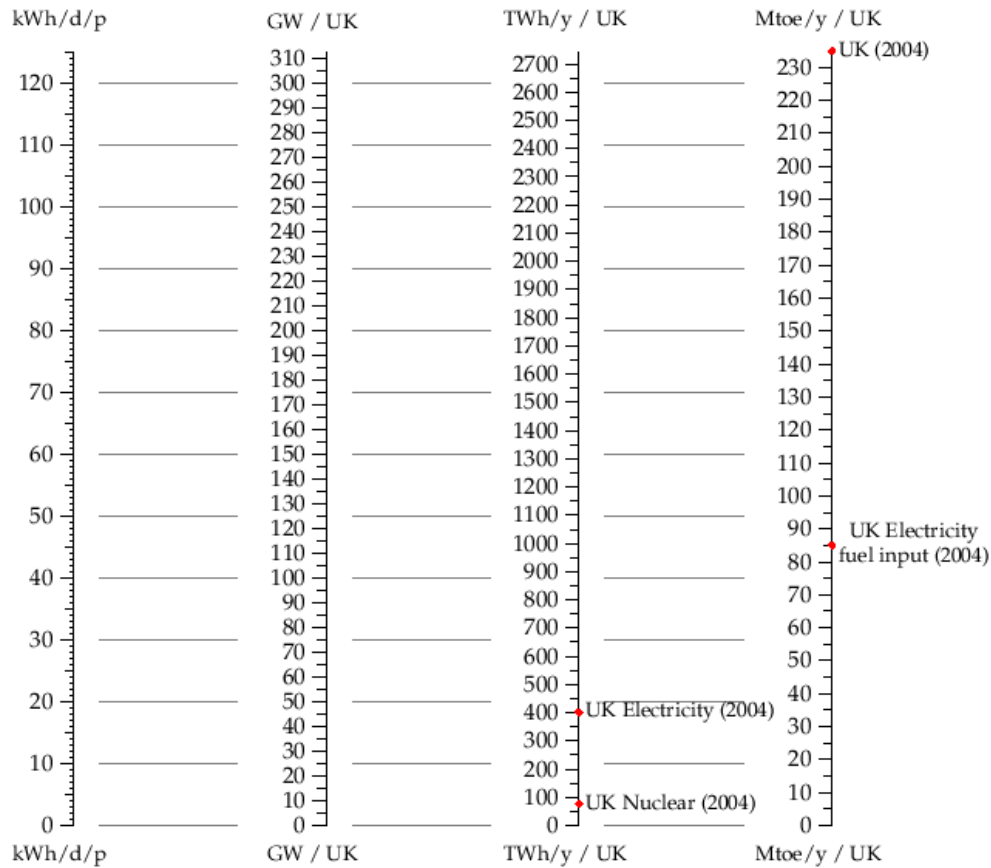


The author, July 2008.  
Photo by David Stern.



# Umrechnungstabellen

## Power translation chart



1 kWh/d the same as 1/24 kW

GW often used for 'capacity' (peak output)

TWh/y often used for average output

1 Mtoe 'one million tons of oil equivalent'

"UK" = 60 million people

USA energy consumption: 250 kWh/d per person

Europe energy consumption: 125 kWh/d per person

The most commonly used units in public documents discussing power options are:

terawatt-hours per year (TWh/y).

1000 TWh/y per United Kingdom is roughly equal to 45 kWh/d per person.

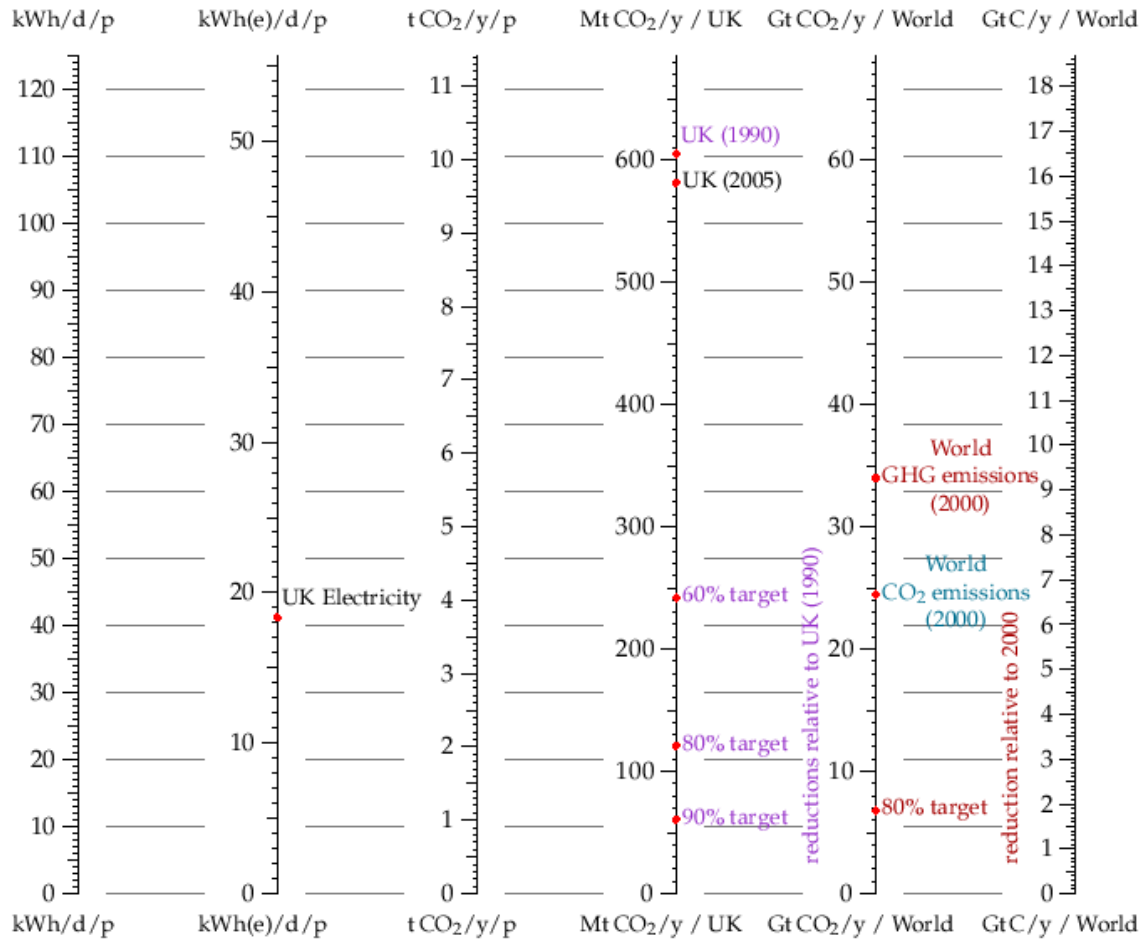
gigawatts (GW).

2.5 GW per UK is 1 kWh/d per person.

million tons of oil equivalent per year (Mtoe/y).

2 Mtoe/y per UK is roughly 1 kWh/d per person.

### Carbon translation chart



kWh *chemical energy exchange rate:*  
 1 kWh ↔ 250 g of CO<sub>2</sub> (oil, petrol)  
 (for gas, 1 kWh ↔ 200 g)

kWh(e) *electrical energy is more costly:*  
 1 kWh(e) ↔ 445 g of CO<sub>2</sub> (gas)  
 (Coal costs twice as much CO<sub>2</sub>)

tCO<sub>2</sub> ton of CO<sub>2</sub>  
 MtC million tons of carbon

“UK” = 60 million people  
 “World” = 6 billion people