“GREEN”/SUSTAINABLE INFORMATION TECHNOLOGY & COMMUNICATIONS (Green ITC) INFORMATION POINTERS

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PURPOSE

This file contains a non-exhaustive list of information pointers (books, organizations, Web sites, software, etc.) all of relevance for an aspect of Green ITC. The emphasis in the selection has been put on importance, credibility and timeliness. Therefore academic articles are few as their time window of relevance may have passed sometimes.

This file should help readers who want fast to identify information sources, to start off a research or problem solving analysis. The chapter with regulatory policies reaches out broadly to help compare regulations in Green ITC with those in other sectors.

It has been claimed by the Climate Group (www.smart2020.org) that ITC contribute 2 % of CO2 emissions raising to 4 %, but also that ITC may contribute to reduce total CO2 emissions by 15 %, by combining so-called technical Green IT 2.0 approaches and organizational Green ITC 1.5 approaches

WARNING: - *This information is provided without any responsibility by author as to availability, costs, and correctness of the references. This list constitutes no endorsement of any reference or sources.*

-This list is provided as a service to the community, but source must be cited

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1. TERMINOLOGY, ENCYCLOPEDIA

-Planetécologie on-line encyclopedia www.planetecologie.org

- www.portail-environnement.com

- Barney L. Capehart (Ed), Encyclopedia of energy engineering and technology, CRC Press, 2007, ISBN: 1420054155, 9781420054156, 1667 p.

2. CLIMATE, ENVIRONMENT

-European environmental agency EEA www.eea.eu.int (includes data gathered by the European network of information and observations on the environment EIONET

-IPCC (Intergovernmental panel on climate change) latest scientific news on climate change www.realclimate.org , www.ipcc.ch

-Mapping the impact of global warming: www.actoncopenhagen.ecc.gov.uk/en/ambition/evidence/4-degrees-map

-Institut français de l'environnement and it's newsletter www.ifen.fr

-Bjørn Lomborg, Copenhagen consensus center: www.copenhagenconsensus.com

- www.fixtheclimate.com

- John Lennox Monteith , M.H. Unsworth, Principles of environmental physics, Academic Press, 2008 , ISBN 0125051034, 9780125051033, 418 p.

-S. Foucart, Le populisme climatique: enquête sur les ennemis de la science, Denoël, Paris, 2010, 320 p.

- Scientific news on climate change www.realclimate.org

-Committee on Climate Change (2008) Building a low-carbon economy -the UK's contribution to tackling climate change 1st December 2008 available at http://www.theccc.org.uk/reports/building-a-low-carbon-economy

-Committee on Climate Change (2009) Meeting Carbon Budgets -the need for a step change, 12 October 2009 at http://www.theccc.org.uk/reports/progress-reports

-DECC (2009) The UK Low Carbon Transition Plan, available at http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

-Ofgem (2009a) Project Discovery, available at http://www.ofgem.gov.uk/MARKETS/WHLMKTS/DISCOVERY/Documents1/Discovery_Scenarios_ConDoc_FINAL.pdf

3. GREEN ITC in general

-Green ITC conferences and events, www.greenit-conferences.org

-P. Tassin, G. Berhault, F. Berthoud, P. Bonnet, F. Bordage, F. Bordes, E. Delsol, Systèmes d'information et développement durable, Dunod, 2010, ISBN: 978-2-7462-2499-5, 352 p.

-B. Sunden (Ed), Heat transfer IX, WIT Press, Wessex Institute http://library.witpress.com

-European council for an energy efficient economy www.eceee.org

-Green touch: industry forum started by Alcatel Lucent aiming at a 1000 fold reduction of energy consumption of communications networks www.greentouch.org

-ADEME www.ademe.fr

-ARTEMIS EU Joint undertaking on Advanced R&D for embedded intelligence and systems www.artemis-sra.eu (SP7: embedded technology for sustainable life)

- M. Gupta, S. Singh, "The Greening of the Internet," ACM SIGCOMM 2003, Karlsruhe, Germany, (August 2003)

-Green e-sustainability initiative (incl .ITU)

-Tool to evaluate life cycle emissions of 1000 IT sub-systems www.epeat.net

-IPCC www.ipcc.ch

- Toby J. Velte, Anthony Velte, Robert C. Elsenpeter,"Green IT: Reduce Your Information System's Environmental Impact While Adding to the bottom line", Mc Graw Hill Professional, 2008, ISBN: 0071599231, 9780071599238, 308 p.

- Alan Calder, "Compliance for Green IT: Pocket Guide", IT Governance Ltd, 2009, ISBN: 1849280002, 9781849280006, 76 p.

- Lee Goldberg, Wendy Middleton, "Green electronics/green bottom line: environmentally responsible engineering", Newnes, 2000, ISBN: 0750699930, 9780750699938, 340 p.

-L.D. Danny Harvey, Energy efficiency and the demand for energy services, Earthscan, 2010, 1200 pages, www.earthscan.co.uk (90 GBP)

- PowerTop is a Linux tool which determines which programs consume power when a computer is idle http://www.lesswatts.org/projects/powertop/

-Analysis of different computer configurations energy consumption http://www.ecoinfo.cnrs.fr/spip.php?article211

- Bolla, Raffaele; Bruschi, Roberto; Cucchietti, Flavio; Davoli, Franco (25 July 2010). "Energy Efficiency in the Future Internet: A Survey of Existing Approaches and Trends in Energy-Aware Fixed Network Infrastructures". IEEE Communications Surveys and Tutorials (COMST) PP (99): 1–22. ISSN 1553-877X, http://ieeexplore.ieee.org/search/srchabstract.jsp?tp=&arnumber=5522467&%20amp;queryText%3Dbolla+bruschi%26openedRefinements%3D*%26searchField%3DSearch+All&tag=1

- Bolla, Raffaele; Bruschi, Roberto; Christensen, Ken; Cucchietti, Flavio; Davoli, Franco; Singh, Suresh (2011). "The Potential Impact of Green Technologies in Next-Generation Wireline Networks – Is There Room for Energy Saving Optimization? » IEEE Communication Magazine (COMMAG)

- Luiz André Barroso and Urs Hölzle, The Case for Energy-Proportional Computing, IEEE Computer, Dec. 2007, 33-37

4. COST 804 DOCUMENTS

-COST 804 WG1 Report on Hardware leverages for energy efficiency in large scale distributed systems www.cost804.org

-COST 804 Training school on energy savings in large scale systems, http://www.ens-lyon.fr/LIP/RESO/COST-TrainingSchool-2011/

5. GRID TECHNOLOGIES

-IEEE Power & energy magazine

-IEEE Transactions on smart grid

-European Grid Initiative, coordinating clusters of computers through national centers called National Grid Initiatives (NGI) www.EGI.eu

-European Network of transmission system operators for electricity (ENTSOE) in Europe www.entsoe.eu

-IEEE Smart Grid Web portal http://smartgrid.ieee.org

-Advanced research institute (Virginia Tech) smart grid information clearinghouse http://www.sgiclearinghouse.org

-IEEE Power & energy society http://www.ieee-pes.org

-IEEE Power electronics society http://www.ieee-pels.org

-Daily news about energy: www.enerzine.com

- Maozhen Li, Mark Baker, The grid: core technologies, John Wiley and Sons, 2005, ISBN: 0470094176, 9780470094174, 423 p.

-Virginia Tech Ranking of data centers by energy efficiency www.green500.org

-XtreemOS open source distributed OS for grids

-MONARC2 simulation framework for dynamics of grids: resources and activities http://monarc.cacr.caltech.edu

- Distributed scheduling on computer grids, and distributed interactive engineering toolkit DIET http://graal.ens-lyon.fr/DIET

-EU FP7 R&D programs in energy http://www.eurosfaire.prd.fr/7pc/energy/

-Map-Reduce parallel programming model created by Google for processing in cloud computing environments http://labs.google.com/papers/mapreduce-osdi04.pdf

-Energy consumption in computer grids http://leswatts.org/projects/powertop

- Chiaraviglio L.; Mellia M.; Neri F., Energy-aware Backbone Networks: a Case Study, In: First International Workshop on Green Communications (GreenComm'09), First International Workshop on Green Communications (GreenComm'09) (Dresden, Germany) 18 June 2009, (pp.1-5) ISBN: 9781424434374

- Panarello C.; Lombardo L.; Schembra G.; Chiaraviglio L.; Mellia M , Energy saving and network performance: a trade-off approach, In: Proceedings of the 1st International Conference on Energy-Efficient Computing and Networking , International Conference on Energy-Efficient Computing and Networking (Passau, Germania) April 2010, pp.10 (pp.41-50) ISBN:9781450300421

6. ECONOMIC ASPECTS

-C. Dubois, Transformations dans les marchés de l'énergie, Dunod, 2009, ISBN: 978-2-7462-2463-6, 234 p.

-World business council on sustainable development www.wbcsd.org

-Economic impact of renewables on jobs and economic output http://ec.europa.eu/energy/renewables

-M. Reyne, Les énergies: comparaisons technique set socio-économiques, Lavoisier, 2009, ISBN: 978-7-7462-2331-8

-C. Dubois, Transformations dans le marché de l'énergie, Lavoisier, 2009, ISBN : 978-2-7462-2463-6

-BEinGRID Project www.beingrid.eu

-T. Dimitrakos, J. Martrat, S. Wesner (Eds), Service oriented infrastructure platforms for the enterprise: a selection of common capabilities in real-life business trials, Springer, 2010, ISBN: 978-3-642-04085-6

-K. Stanoevska-Slabeva, T. Wozniak, S. Ristol (Eds), Grid and cloud computing: a business perspective on technology and applications, Springer, ISBN: 978-3-642-05192-0

-S. Furfari, Le monde et l'énergie: enjeux géopolitiques, Editions Technip, 2007, 424 p.

-David J.C. Mac Kay , Sustainable energy-without hot air , UIT Cambridge , Dec. 2008, 384 p. http://www.withouthotair.com

-Comité de liaison des énergies renouvelables www.cler.org

-Energie Cités www.energie-cites.org

-Wicks, M (2009) Energy Security: a national challenge in a changing world" report available at http://www.decc.gov.uk/en/content/cms/news/pn090/pn090.aspx

-World energy outlook 2010, Dr Fatih Birol (Ed), International energy agency, www.iea.org, 650 pages (120 Euros)

7. CORPORATE STRATEGIES IN GREEN ITC

-Carbon Trust (UK)

-World resource Institute (WRI), Washington DC

-Pew Center on global climate change (US)

-Det Økologiske råd (DK) www.ecocouncil.dk

-Carbon disclosure project (CDP): reports about corporate climate reports

-Clean energy patent growth index (CEPGI), Heslin Rothenberg Farley & Mesiti Patent law firm (USA)

-R. Pielke, The climate fix: what scientists and politicians won't tell you about global warming, Basic Books, 2010, 288 p., ISBN: 978-0-4650-2052-2

-Bellona Foundation www.101-solutions.org

-C. Herrmann, Ganzheitliches Life cycle management, Springer, 2010, 530 p., ISBN: 978-3-642-01420-8

-Journal FORUM Nachhaltig Wirtschaften (DE) www.forum-csr.net

-UN Principles for responsible management in education (UN PRME) : www.unprme.org

-UK PRME conference on responsible management education: http://uk.cbs.dk/climate

-MBA in green business, EM-Strasbourg (FR) , Tuck Business school (US), Hochschule für Life sciences FHNW, National Univ. Singapore , Univ. Tokyo

8. RENEWABLE ENERGIES

-IEEE Transactions on sustainable energy

-Observatoire des énergies renouvelables www.energies-renouvelables.org

-AREVA Alternatives Journal www.alternatives.areva.com

-DECC (2008) Energy Markets Outlook at http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/markets/outlook/outlook.aspx

-SKM (2008) Growth Scenarios for UK Renewables Generation and Implications for Future Developments and Operation of Electricity Networks BERR Publication URN 08/1021 available at http://www.berr.gov.uk/files/file46772.pdf

-Concentrating solar power www.solarpaces.org

9. HOUSING EMISSIONS AND ENERGY

-UK Domestic fact files www.bre.co.uk/housing/pagejsp?id=396

-Guide to low energy buildings: http://lavenergi.rockwool.dk

-Passive houses www.lamaisonpassive.fr

-Passive Houses International and Passivhaus Institut www.passivehouse-international.org

-EU energy savings in buildings www.buildup.eu

-"Optimization of household energy utilization", Imperial College Project deliverable N0014B "Zero emission enterprise", DTI, London, 2007

-Rockwool BuildDesk online calculator www.builddeskonline.com

-O. David, A. Fabre, Les économies d'énergie dans l'habitat existant, Presses des Mines de Paris, 60 Bd St Michel, 75006 Paris, 2009, 230 p.

-EU Eco-Design of Boilers Stakeholder Group (www.ecoboiler.org).

-Cenergia building models ENPIRE, Sol-Byg, Optibuild http://www.cenergia.dk/da/downloads/

10. NUCLEAR, ENERGY, ELECTRICAL POWER

-Intl agency for atomic energy www.iaea.org

-ANDRA nuclear waste agency www.andra.fr

-BERR (2008) Meeting the energy challenge: a White Paper on nuclear power, January, available at http://www.berr.gov.uk/files/file43006.pdf

-International gas Union www.igu.org

-Observatoire de l'industrie électrique www.observatoire-electricite.fr

-Report on peak electrical demand management, April 2010, www.developpement-durable.gouv.fr

11. REGULATORY POLICIES

- Jody Freeman, Charles Kolstad, Moving to markets in environmental regulation: lessons from twenty years of experience, Oxford University Press US, 2007, ISBN: 0195189655, 9780195189650, 488 p.

-Acemoglu, D., Robinson, J.A. (2005), Economic Origins of Dictatorship and Democracy, Cambridge: CUP.

-Bertram, G. (2006), „Restructuring the New Zealand Electricity Sector 1984-2005", in Sioshansi, F.P. and Pfaffenberger, W. (eds.) (2006), Electricity Market Reform: An International Perspective, Oxford: Elsevier. pp.203-234.

-Cave, M. (2009), Independent Review of Competition and Innovation in Water Markets: Final Report, London: DEFRA.

-Commerce Commission (2008), Regulatory Provisions of the Commerce Act 1986 Discussion Paper 19 December, Auckland: Commerce Commission.

-Doucet, J. and S.C. Littlechild, (2006), Negotiated settlements and the National Energy Board in Canada, EPRG Working Paper, No.0629.

-Demsetz, H. (1968), „Why Regulate Utilities", Journal of Law and Economics 11, 55-56.

-Green, R., Lorenzoni, A., Perez, Y. and Pollitt, M. (2006), Benchmarking electricity liberalization in Europe, EPRG Working Paper, No.0609.

-Hausman, J. and Sidak, J.G. (2007), Telecommunications Regulation: Current Approaches with the End in Sight Mimeo.

-Jamasb, T. and Pollitt, M. (2009), Electricity sector liberalization and innovation: an analysis of the UK patenting activities, EPRG Working Paper, No.0901.

-Jamasb, T. and Pollitt, M. (2007) "Incentive regulation of electricity distribution networks: lessons of experience from Britain." Energy Policy, 35(12): 6163-6187.

-Jamasb, T., Mota, R., Newbery, D. and Pollitt, M. (2004), Electricity sector reform in developing countries: a survey of empirical evidence on determinants and performance. EPRG Working Paper, EP 47.

-Jamasb, T., Neuhoff, K., Newbery, D. and Pollitt, M. (2005), Long-term Framework for Electricity Distribution Access Charges, EPRG Working Paper, No.0505.

12. EXAMPLES OF COMPANY GUIDELINES in Green ITC and sustainability

-Dow Jones Sustainability index

-IDC sustainability index

-HSBC Climate confidence monitor

-Siemens SN 36350 on product and service sustainability

-Guidelines for company reporting on greenhouse gas emissions (UK)
http://www.defra.gov.uk/environment/business/envrp/gas/envrpgas-annexes.pdf