

## Green Transition Scoreboard™

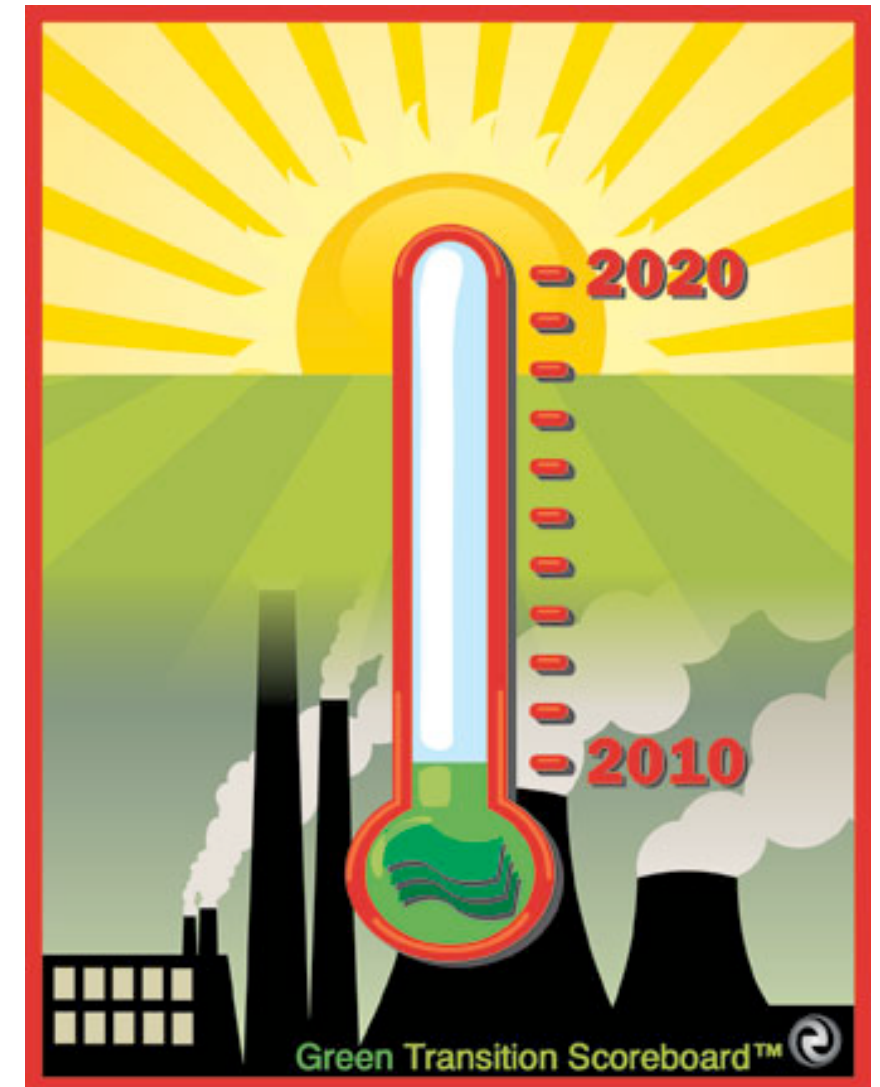
July 30, 2010 - Findings on investments since 2007

The Green Transition Scoreboard™ tracks global private investments from investors and companies that are flowing towards the green economy. As these investments increase, the scoreboard will track totals, providing investors with tangible evidence of the growing green economy.

The new Green Transition Scoreboard™, created by Hazel Henderson, is researched and compiled by the Ethical Markets Media expert team: Timothy Jack Nash, M.Sc.; assisted by Andrew Thomson from The Cleantech Group, Matt Milo, M.Sc., and Nina Gormanns, M.Sc.

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	Amount (USD)	Source
<b>RENEWABLE ENERGY</b>	<b>\$1,147,940,000,000.00</b>	
2007	\$177,700,000,000.00	<a href="http://sefi.unep.org/english/globaltrends2010.html">http://sefi.unep.org/english/globaltrends2010.html</a>
2008	\$196,400,000,000.00	<a href="http://sefi.unep.org/english/globaltrends2010.html">http://sefi.unep.org/english/globaltrends2010.html</a>
2009	\$191,500,000,000.00	<a href="http://sefi.unep.org/english/globaltrends2010.html">http://sefi.unep.org/english/globaltrends2010.html</a>
2010 Q1&Q2	\$61,200,000,000.00	<a href="http://bnef.com/Download/pressreleases/121/pdf/121.pdf">http://bnef.com/Download/pressreleases/121/pdf/121.pdf</a> ; <a href="http://bnef.com/Download/pressreleases/115/pdf/115.pdf">http://bnef.com/Download/pressreleases/115/pdf/115.pdf</a>
Commitments	\$521,140,000,000.00	See Next Page
<b>EFFICIENCY &amp; GREEN CONSTRUCTION</b>	<b>\$227,656,000,000.00</b>	
2007 (USA only)	\$28,180,000,000.00	<a href="http://www.usgbc.org/ShowFile.aspx?DocumentID=6435">http://www.usgbc.org/ShowFile.aspx?DocumentID=6435</a>
2008 (USA only)	\$41,921,000,000.00	<a href="http://www.usgbc.org/ShowFile.aspx?DocumentID=6435">http://www.usgbc.org/ShowFile.aspx?DocumentID=6435</a>
2009 (Global)	\$103,200,000,000.00	<a href="#">Lux Research "Diamonds in the Rough: Uncovering Opportunities in the \$277 Billion Green Buildings Market" March 2010</a>
2010 Q1&Q2 (Global)	\$54,355,000,000.00	<a href="#">Lux Research "Diamonds in the Rough: Uncovering Opportunities in the \$277 Billion Green Buildings Market" March 2010</a>
<b>CLEANTECH</b>	<b>\$51,877,240,371.00</b>	
Venture Capital (2007 - 2010 Q1&Q2)	\$11,538,536,239.00	<a href="#">Cleantech Group</a>
Initial Public Offerings (2007 - 2010 Q1&Q2)	\$9,524,236,968.00	<a href="#">Cleantech Group</a>
Mergers & Acquisitions (2007 - 2010 Q1&Q2)	\$30,814,467,164.00	<a href="#">Cleantech Group</a>
<b>SMART GRID</b>	<b>\$111,331,000,000.00</b>	
2008	\$17,000,000,000.00	<a href="http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202008.pdf">http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202008.pdf</a>
2009	\$25,000,000,000.00	<a href="http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202009.pdf">http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202009.pdf</a>
2010 Q1&Q2	\$14,500,000,000.00	<a href="http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202010.pdf">http://www.gpbullhound.com/researchpdf/Smart%20Grid%20Report%202010.pdf</a>
Commitments	\$54,831,000,000.00	See Next Page
<b>CORPORATE R&amp;D</b>	<b>\$105,733,039,878.00</b>	
2007-2010	\$52,314,407,000.00	See Next Page
Commitments	\$53,418,632,878.00	See Next Page
<b>GRAND TOTAL</b>	<b>\$1,644,537,280,249</b>	

Many figures have been converted into USD from other currencies. Amounts will fluctuate day-to-day with exchange rates.

Renewable Energy Commitments	Amount (USD)	Source
Soros	\$1,000,000,000.00	<a href="http://www.reuters.com/article/newsOne/idUSTRE5992BJ20091010">http://www.reuters.com/article/newsOne/idUSTRE5992BJ20091010</a>
Desertec	\$518,140,000,000.00	<a href="http://blogs.forbes.com/energysource/2010/06/30/desertec-energy-from-the-sahara-to-europe/">http://blogs.forbes.com/energysource/2010/06/30/desertec-energy-from-the-sahara-to-europe/</a>
T. Boone Pickens	\$2,000,000,000.00	<a href="http://www.newsweek.com/id/210561">http://www.newsweek.com/id/210561</a>
Pacific Gas & Electric	\$1,500,000,000.00	<a href="http://www.corporateregister.com/a10723/26990-09Co-7098370F1794835000O-US.pdf">http://www.corporateregister.com/a10723/26990-09Co-7098370F1794835000O-US.pdf</a>
<b>TOTAL</b>	<b>\$522,640,000,000.00</b>	
Corporate R&D (Since 2007)	Amount (USD)	Source
Renewable Energy	\$49,300,000,000.00	<a href="http://sefi.unep.org/english/globaltrends2010.html">http://sefi.unep.org/english/globaltrends2010.html</a>
Corning, Inc.	\$1,546,000,000.00	<a href="http://finance.yahoo.com/q/is?s=glw">http://finance.yahoo.com/q/is?s=glw</a>
Cree, Inc.	\$182,899,000.00	<a href="http://finance.yahoo.com/q/is?s=cree">http://finance.yahoo.com/q/is?s=cree</a>
Dionex, Inc.	\$77,472,000.00	<a href="http://finance.yahoo.com/q/is?s=dnex">http://finance.yahoo.com/q/is?s=dnex</a>
Donaldson, Inc.	\$122,953,000.00	<a href="http://finance.yahoo.com/q/is?s=dcj">http://finance.yahoo.com/q/is?s=dcj</a>
Energy Conversion Devices	\$31,358,000.00	<a href="http://finance.yahoo.com/q/is?s=ener">http://finance.yahoo.com/q/is?s=ener</a>
Energy Recovery, Inc.	\$6,847,000.00	<a href="http://finance.yahoo.com/q/is?s=erij">http://finance.yahoo.com/q/is?s=erij</a>
EnerNOC, Inc.	\$15,332,000.00	<a href="http://finance.yahoo.com/q/is?s=enoc">http://finance.yahoo.com/q/is?s=enoc</a>
Fuel Systems Solutions	\$32,148,000.00	<a href="http://finance.yahoo.com/q/is?s=fsys">http://finance.yahoo.com/q/is?s=fsys</a>
Hexcel Corp.	\$86,900,000.00	<a href="http://finance.yahoo.com/q/is?s=hxl">http://finance.yahoo.com/q/is?s=hxl</a>
Itron Inc.	\$310,288,000.00	<a href="http://finance.yahoo.com/q/is?s=itri">http://finance.yahoo.com/q/is?s=itri</a>
Kadant Inc.	\$15,833,000.00	<a href="http://finance.yahoo.com/q/is?s=kai">http://finance.yahoo.com/q/is?s=kai</a>
MEMC Electronic Materials	\$109,500,000.00	<a href="http://finance.yahoo.com/q/is?s=wfr">http://finance.yahoo.com/q/is?s=wfr</a>
Pall Corp.	\$191,813,000.00	<a href="http://finance.yahoo.com/q/is?s=PLL&amp;annual">http://finance.yahoo.com/q/is?s=PLL&amp;annual</a>
Power Integrations Inc.	\$77,912,000.00	<a href="http://finance.yahoo.com/q/is?s=powi">http://finance.yahoo.com/q/is?s=powi</a>
Woodward Governor Co.	\$207,152,000.00	<a href="http://finance.yahoo.com/q/is?s=wgov">http://finance.yahoo.com/q/is?s=wgov</a>
General Electric	\$3,000,000,000.00	<a href="http://files.gecompany.com/ecomagination/ge_2009_ecomagination_report.pdf">http://files.gecompany.com/ecomagination/ge_2009_ecomagination_report.pdf</a>
IBM	\$2,000,000,000.00	<a href="http://www-03.ibm.com/press/us/en/pressrelease/21524.wss">http://www-03.ibm.com/press/us/en/pressrelease/21524.wss</a>
Pacific Gas & Electric	\$1,043,300,000.00	<a href="http://www.corporateregister.com/a10723/26990-09Co-7098370F1794835000O-US.pdf">http://www.corporateregister.com/a10723/26990-09Co-7098370F1794835000O-US.pdf</a>
TXU Energy Retail	\$100,000,000.00	<a href="http://www.txu.com/about_12620.htm">http://www.txu.com/about_12620.htm</a>
<b>TOTAL</b>	<b>\$52,314,407,000.00</b>	
R&D Commitments	Amount (USD)	Source
Philips	\$883,462,000.00	<a href="http://www.annualreport2008.philips.com/pages/our_group_performance/sustainability/green_i">http://www.annualreport2008.philips.com/pages/our_group_performance/sustainability/green_i</a>
General Electric	\$10,000,000,000.00	<a href="http://files.gecompany.com/ecomagination/ge_2009_ecomagination_report.pdf">http://files.gecompany.com/ecomagination/ge_2009_ecomagination_report.pdf</a>
Toyota	\$5,246,000,000.00	<a href="http://www.corporateregister.com/a10723/27913-09Co-8011031T180736675X-GI.pdf">http://www.corporateregister.com/a10723/27913-09Co-8011031T180736675X-GI.pdf</a>
Solon	\$7,431,000.00	<a href="http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf">http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf</a>
Q-Cells	\$46,072,000.00	<a href="http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf">http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf</a>
REpower Systems	\$32,696,000.00	<a href="http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf">http://iri.jrc.ec.europa.eu/research/docs/2009/JRC54920.pdf</a>
IBM	\$10,000,000,000.00	<a href="http://www-03.ibm.com/press/us/en/presskit/21440.wss">http://www-03.ibm.com/press/us/en/presskit/21440.wss</a>
Robert Bosch	\$2,229,000,000.00	<a href="http://www.corporateregister.com/a10723/bosch0708-sus-gr.pdf">http://www.corporateregister.com/a10723/bosch0708-sus-gr.pdf</a>
Siemens	\$1,486,000,000.00	<a href="http://w1.siemens.com/innovation/en/about_fande/index.htm">http://w1.siemens.com/innovation/en/about_fande/index.htm</a>
Samsung	\$4,300,000,000.00	<a href="http://in.reuters.com/article/rbssConsumerGoodsAndRetailNews/idINSEO3403820090720">http://in.reuters.com/article/rbssConsumerGoodsAndRetailNews/idINSEO3403820090720</a>
NEC	\$224,971,878.00	<a href="http://www.nec.co.jp/eco/en/announce/accounting/index.html">http://www.nec.co.jp/eco/en/announce/accounting/index.html</a>
Boeing	\$4,128,000,000.00	<a href="http://www.newairplane.com/environment/#BCAEnvironmentalBrochure">http://www.newairplane.com/environment/#BCAEnvironmentalBrochure</a> ; <a href="http://finance.yahoo.c">http://finance.yahoo.c</a>
Renault	\$600,000,000.00	<a href="http://www.guardian.co.uk/business/2009/feb/12/renault-nissan-loss">http://www.guardian.co.uk/business/2009/feb/12/renault-nissan-loss</a>
Fujitsu	\$20,000,000.00	<a href="http://www.fujitsu.com/downloads/ECO/rep2009/fujitsu2009report50-e.pdf">http://www.fujitsu.com/downloads/ECO/rep2009/fujitsu2009report50-e.pdf</a>
Nissan	\$4,000,000,000.00	<a href="http://www.popularmechanics.com/automotive/new_cars/4334559.html">http://www.popularmechanics.com/automotive/new_cars/4334559.html</a>
Kia Motors	\$3,415,000,000.00	<a href="http://www.autoevolution.com/news/kia-motors-to-invest-23-billion-euros-in-european-green-plan-9194.html">http://www.autoevolution.com/news/kia-motors-to-invest-23-billion-euros-in-european-green-plan-9194.html</a>
Bayer	\$1,400,000,000.00	<a href="http://www.koreatimes.co.kr/www/news/biz/2009/08/123_50639.html">http://www.koreatimes.co.kr/www/news/biz/2009/08/123_50639.html</a>
Exxon	\$600,000,000.00	<a href="http://www.reuters.com/article/rbssEnergyNews/idUSLE64157320090714">http://www.reuters.com/article/rbssEnergyNews/idUSLE64157320090714</a>
Hyundai	\$3,300,000,000.00	<a href="http://green.autoblog.com/2009/07/24/hyundai-investing-3-3-billion-in-green-technologies-by-2013/">http://green.autoblog.com/2009/07/24/hyundai-investing-3-3-billion-in-green-technologies-by-2013/</a>
Bolloré Group	\$1,500,000,000.00	<a href="http://www.cleantech.com/news/5226/french-billionaire-bolloré-battery-ev-bol">http://www.cleantech.com/news/5226/french-billionaire-bolloré-battery-ev-bol</a>
<b>TOTAL</b>	<b>\$53,418,632,878.00</b>	
Smart Grid Commitments	Amount (USD)	Source
Southern California Edison	\$1,500,000,000.00	<a href="http://www.sce.com/PowerandEnvironment/smartgrid/ourprogram.htm">http://www.sce.com/PowerandEnvironment/smartgrid/ourprogram.htm</a>
Florida Power & Light	\$378,000,000.00	<a href="http://www.fpl.com/news/2009/102709a.shtml">http://www.fpl.com/news/2009/102709a.shtml</a>
Southern Company	\$1,000,000,000.00	<a href="http://www.southerncompany.com/corporateresponsibility/electricity/championing.aspx">http://www.southerncompany.com/corporateresponsibility/electricity/championing.aspx</a>
Federal Grid Company (Russia)	\$30,123,000,000.00	<a href="http://www.themoscowtimes.com/business/article/federal-grid-company-seeks-30bln-investmer">http://www.themoscowtimes.com/business/article/federal-grid-company-seeks-30bln-investmer</a>
Mitsubishi Electric	\$80,000,000.00	<a href="http://www.solarthermalmagazine.com/2010/05/17/mitsubishi-electric-to-invest-7-billion-jpy-in-s">http://www.solarthermalmagazine.com/2010/05/17/mitsubishi-electric-to-invest-7-billion-jpy-in-s</a>
Korea Smart Grid Institute	\$20,000,000,000.00	<a href="http://www.smartgrid.or.kr/10eng4-2.php">http://www.smartgrid.or.kr/10eng4-2.php</a>
Duke Energy	\$1,000,000,000.00	<a href="http://sustainabilityreport.duke-energy.com/products/smart-grid.asp">http://sustainabilityreport.duke-energy.com/products/smart-grid.asp</a>
Exelon Corp	\$750,000,000.00	<a href="http://www.exeloncorp.com/performance/operational.aspx">http://www.exeloncorp.com/performance/operational.aspx</a>
<b>TOTAL</b>	<b>\$54,831,000,000.00</b>	

## Renewable Energy

Renewable Energy figures are from the Sustainable Energy Finance Initiative's "[Global Trends in Sustainable Energy Investment 2010](#)" report." Total transactions include private technology development, equipment manufacturing, project finance and M&A activity. We've subtracted Government R&D – to remove public investments, Corporate R&D – to avoid double-counting, and Biofuels that compete with food production. Amounts for 2010 Q1&Q2 are an aggregate from company and industry press releases, limiting our ability to remove all R&D or Biofuels. Breakdown of investments by value chain, sector, and geography are available in the source report.

The €400 billion [Desertec](#) project is included in the Commitments section. With the backing of 12 large European companies, we are confident that this project is coming to fruition. Please note that international investments are reported in US dollars and are subject to fluctuating exchange rates.

## Efficiency and Green Construction

Green Construction figures for 2007 & 2008 are based on estimates from McGraw Hill that were published in the [U.S. Green Building Council 2009 Green Jobs Study](#). Amounts are calculated using the value of the green construction market, defined as construction built to LEED standards or that incorporate multiple green building elements. Since public-sector info is not recorded, the total includes some government buildings. Similar data for other countries has been a challenge to compile. If you know where country-specific information on green construction can be found, please [contact us](#).

Figures for 2009 are found in the "[Diamonds in the Rough: Uncovering Opportunities in the \\$277 Billion Green Buildings Market](#)" report by Lux Research. It compiles revenues from energy-saving, established and emerging green buildings technologies. The broad categories are: Services, including green engineering and design companies; Equipment, including lighting, HVAC, and water heating systems; and Materials, including insulation, windows, and some structural materials that double as thermal insulators. We subtracted figures for government buildings, energy generation equipment, and energy monitoring services and hardware (smart meters, etc.) to avoid public investments and double-counting. 2010 Q1&Q2 amounts are based on 2009 figures multiplied by the expected compound annual growth rate.

## Cleantech

Cleantech figures are from research compiled by [The Cleantech Group](#). Cleantech is a broad sector, and includes companies in the following areas: agriculture; air and environment; energy efficiency, infrastructure and storage; materials; recycling and waste; transportation; and water/wastewater.



Since figures include Venture Capital, Mergers & Acquisitions, and Initial Public Offerings, there is no overlap with the Green Construction and Smart Grid sections that only count revenues. Where these kinds of investments are included in the Renewable Energy category, they are omitted here. We've also omitted investments in clean coal, as they are a band-aid fix for fossil fuel consumption and do not contribute to the green transition.

## **Smart Grid**

Smart Grid figures are from the GP Bullhound Ltd.'s "[How Real is the Vision of a 'Smart Grid'?](#)" report published in June, 2009. Although there are no figures for 2007, the 2008 amounts are based on global smart grid market revenues compiled by Deloitte. They include revenues from advanced meter infrastructure, demand response, and distribution & components. The 2009 and 2010 amounts are based on forecasts, and will be updated as the real numbers become available. Part of these figures are likely government purchases, but there is not enough information to omit them.

Government promises have not been included in Commitments. Included are U.S. utilities and private initiatives from Russia's Federal Grid Company and South Korea's Smart Grid Institute.

## **Corporate R&D**

Corporate R&D figures for investments in green Research & Development are from each company's annual financial and sustainability reports. The complete R&D budget was used for 'pure-play' companies within the cleantech sector, while only amounts targeted to green areas were counted for more diversified companies. R&D by renewable energy companies is from the [Global Trends 2010](#) report cited above, but was moved to this section for consistency.

Companies making long-term investments in R&D have these figures tallied as Commitments. We are assuming that companies will stay true to these commitments, and are listing everything in present-day dollars.

Our list of companies is not exhaustive. If you know of a company that is investing in green R&D that we have not yet included, please [contact us](#).