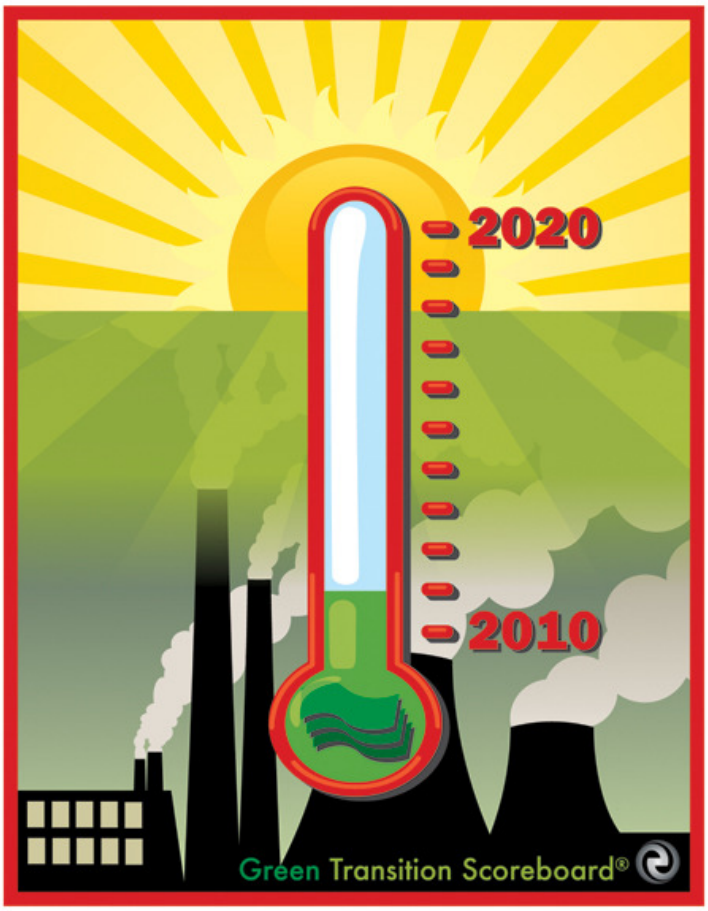
# Green Transition Scoreboard®
# August 2011 Update

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To promote awareness at an intuitive level, the trademarked Green Transition Scoreboard® icon is a universal representation of the growing green economy, independent of any spoken language. As we approach 2020, the green barometer, rising from emblematic fossil-fuel industries, will reach toward a greener world and soar to a solar pinnacle where energy is abundant.

We license selected non-profit groups to carry our icon for information to their members.

For full disclosure: members of the Green Transition Scoreboard® team are invested in companies supporting the green transition, most of which are privately held, early stage, pre-IPO companies.


# August 2011 Update to the Green Transition Scoreboard® and the *Report on the Green Transition Scoreboard® February 2011:*

## *A Primer for Pension Funds, Endowments, Institutions, Foundations and VCs*

Full report and updates available at GreenTransitionScoreboard.com.

While mainstream media, economists and general opinion still designate the Green Economy as "emerging" and assume green investments are riskier or provide lower returns than other investments, global investors have quietly and increasingly moved over $2.4 trillion dollars of their assets and investment into the green transition.

The Green Transition Scoreboard® (GTS) is a time-based, global tracking of this private financial system for sectors investing in green markets. Ethical Markets Media began reporting on the GTS in 2009, tracking private investments and firm commitments in the Green Economy since 2007. This update of the GTS finds that over $2.4 trillion has been invested in the green economy, up from the $2 trillion reported in February 2011.

| INVESTMENTS IN GREEN TRANSITION 2007 – July 2011 | |
|---|---|
| **Sector** | **(US $)** |
| Renewable Energy | $1,540,124,665,000 |
| Efficiency and Green Construction | $339,681,000,000 |
| Cleantech | $105,546,058,199 |
| Smart Grid | $161,038,000,000 |
| Corporate R&D | $258,792,282,000 |
| **Total** | **$2,405,182,005,199** |

Many studies, computer models and reports indicate that investing $1 trillion annually until 2020 can ramp up material and energy efficiencies, reduce costs of wind, solar, geothermal and other renewable energy, increase sustainable land-use and forestry, and support smart infrastructure, transport, building and urban re-design to solidify the Green Transition worldwide. The updated 2011 finding of over $2.4 trillion shows global investors and countries on track to reach $10 trillion in investments by the 2020 goal.

To ensure meeting the target, institutional and other investment funds need to shift away from more speculative fossilized sectors, hedge funds, dark pools and commodity ETFs as explained by Hazel Henderson, creator of the GTS, in the Report on the Green Transition Scoreboard® February 2011. The shift needs to be toward investing at least 10% of portfolios directly in companies driving the global Green Transition. Global investment leader Mercer LLC goes even farther, calling for a 40% asset allocation in green sectors ("Good News on the Global Green Transition"). Using the data in the GTS, security analysts can update their strategic asset allocation (SAA) models to highlight green markets.

The Green Transition Scoreboard® tracks five sectors: Renewable Energy, Efficiency and Green Construction, Cleantech, Smart Grid and Corporate R&D. Detailed descriptions of each sector are available in the *Report on the Green Transition Scoreboard® February 2011* with the August 2011 numbers appearing in this update.

In brief, Renewable Energy includes private technology development, equipment manufacturing, project finance and M&A activity. Efficiency and Green Construction include new building construction and existing building retrofits. Cleantech, reported as venture capital, IPOs and M&A, covers a broad sector, and includes agriculture; environment; energy efficiency, infrastructure and storage; materials; recycling and waste; transportation; and water/wastewater. Smart Grid includes companies actually putting smart grids in place, building the infrastructure rather than designing the technology. Together, these first four sectors account for over $2.146 trillion in investments since 2007.

Corporate Research and Development (R&D) in green transition technologies accounts for over $258 billion, a notable increase from the $163 billion February 2011 findings. This jump may reflect greater management awareness of the need for redesigning products and services for greater energy and materials efficiencies – criteria now driving innovation. Also, reporting standards are improving as investors are demanding more disclosure and governments, such as Japan, publish environmental accounting guidelines.

The R&D number is significant in light of the $100 million threshold in the GTS research from 2007 to 2010, meaning thousands of R&D projects remained uncounted. This August 2011update begins to include such smaller projects, and the 2012 report will focus on these investments from SMEs not normally tallied in summaries. We encourage companies to contact us to be included.

We expect to find more fundamental innovations toward biomimicry models based on nature's ecosystems designs. Such new investments will be measured using The Economics of Ecosystems and Biodiversity (TEEB).

The Green Transition Scoreboard® is the only place to find aggregate corporate green research and development investments in technologies that reduce the use of natural resources and minimize environmental impacts. Paybacks from such investments in efficiency are rapid and produce immediate cost savings.

Several subsectors such as nuclear, food-based biofuels and coal carbon sequestration have been purposefully omitted either because of controversy or lack of consensus that they will make a long-term contribution to sustainability.

Companies, organizations and the source of financial data included in the GTS are screened by social, environment and ethical auditing standards. While some companies may not appear on SRI indices, the GTS tracks green investments specifically, even if the parent entity is not considered a part of the sustainability community. Data sources include the highly respected Cleantech Group, LLC, and traditional reporting sources such as Bloomberg, Yahoo Finance and the NASDAQ OMX Green Economy Global Benchmark Index.

The Green Transition Scoreboard® was created as a public service to help grow the green economy and reform market metrics and due diligence worldwide. Such real investments of $2.4 trillion are in contrast to the unreal multi-trillion figures of macro-economics in bailouts, government debt, deficits and quantitative easing by central banks.

Green technologies often draw on available local resources in a more cost effective, time effective manner than fossil-fueled era, dated technologies, yet many developing countries where these technologies are of paramount importance lack the resources to compile this data for themselves. To provide this information as widely as possible, we are making the GTS available to those UN agencies spearheading the UN's Green Economy Initiative and to the member organizations of the Green Economy Coalition.

The Green Transition Scoreboard® is an ongoing program of research with new reports published every six months. We intend to deepen this research, expanding current categories and adding new ones as the green sectors grow and develop, particularly the emergence of companies based on biomimicry of Nature's productive processes.

As the GTS total increases, it is useful to note that several factors are driving the numbers. Most importantly, investments in these sectors are regularly increasing. Also, our research team is looking at a wider breadth of companies, deepening its study and adding to the totals for previous years. Finally, companies are learning to report investments in terms of the green economy, now counting projects in efficiency, for example, that previously were not considered green.

Many of the investments in green move away from traditional sectors. Others are in addition to investments in traditional sectors. Thus, they are often missed by security analysts focused on obsolete asset allocation models ("Updating Fossilized Asset-Allocation Classes"). This is why Ethical Markets Media presents this as a transition to a green economy, a process that is evolving alongside the legacy technologies and incumbent industries of the fossil-fuel era.

## Update to the *Report on the Green Transition Scoreboard® February 2011*
## Appendix 1 – Investment Totals

| INVESTMENTS IN GREEN TRANSITION 2007 – 2011 Q2 | | |
|---|---|---|
| **Sector and Year** | **Amount (USD)** | |
| **RENEWABLE ENERGY** | **$1,540,124,665,000** | |
| 2007 | $165,500,000,000 | [1] |
| 2008 | $203,700,000,000 | [2] |
| 2009 | $215,700,000,000 | [3] |
| 2010 | $257,900,000,000 | [4] |
| 2011 Q1& Q2 | $72,800,000,000 | |
| Commitments | $624,524,665,000 | |
| **EFFICIENCY & GREEN CONSTRUCTION** | **$339,681,000,000** | |
| 2007 (USA only) | $28,180,000,000 | [5] |
| 2008 (USA only) | $41,921,000,000 | [6] |
| 2009 | $103,200,000,000 | [7] |
| 2010 [8] | $108,710,000,000 | [9] |
| 2011 (Q1 + Q2) | $57,670,000,000 | |
| **CLEANTECH[10]** | **$105,546,058,199** | |
| Venture Capital (2007-2011 Q2) | $19,697,222,667 | |
| Initial Public Offerings (2007-2011 Q2) | $14,387,334,752 | |
| Mergers & Acquisitions (2007-2011 Q2) | $71,461,500,780 | |
| **SMART GRID** | **$161,038,000,000** | |
| 2008 | $17,000,000,000 | [11] |
| 2009 | $25,000,000,000 | [12] |
| 2010 [13] | $29,000,000,000 | [14] |
| 2011 (Q1 + Q2) | $16,500,000,000 | |
| Commitments | $73,538,000,000 | |
| **CORPORATE R&D** | **$258,792,282,000** | |
| 2007-2011 Q2 | $175,707,742,000 | |
| Commitments | $83,084,540,000 | |
| **GRAND TOTAL** | **$2,405,182,005,199** | |

[11] United Nations Environment Programme & New Energy Finance. “Global Trends in Sustainable Energy Investment 2010”. pg. 13. 2010.

[2] Ibid

[3] Ibid

[4] Bloomberg New Energy Finance. “Clean Energy Investment Storms to New Record in 2010”. 11/01/11.

[5] Booz Allen Hamilton. “U.S. Green Building Council Green Jobs Study”. pg. B-2. 2008.

[6] Ibid, B-3.

[7] Lux Research "Diamonds in the Rough: Uncovering Opportunities in the $277 Billion Green Buildings Market" March 2010.

[8] Estimate, see page 6 of the *Report on the Green Transition Scoreboard February 2011: A Primer for Pension Funds, Endowments, Institutions, Foundations and VCs*.

[9] Lux Research "Diamonds in the Rough: Uncovering Opportunities in the $277 Billion Green Buildings Market" March 2010.

[10] Cleantech Group, LLC.

[11] GP Bullhound. ”How Real is the Vision of a ‘Smart Grid’?” June 2009.

[12] Ibid

[13] Estimate, see page 8 of the *Report on the Green Transition Scoreboard February 2011: A Primer for Pension Funds, Endowments, Institutions, Foundations and VCs*.

[14] GP Bullhound. ”How Real is the Vision of a ‘Smart Grid’?” June 2009.