

Preqin Special Report:

Private Equity Cleantech

April 2010



Private Equity • Real Estate • Hedge Funds • Infrastructure

Private Equity Cleantech: A Booming Sector on a Truly Global Scale

Private equity cleantech remains a booming sector on a global scale, with numerous investment opportunities arising from a worldwide desire to address the impacts of human activity on the environment.

Between 2005 and 2008, the number of private equity funds including cleantech as an investment focus increased significantly. Fig. 1 shows that 105 such funds commenced investment in 2008, a figure almost four times greater than the 28 funds that commenced investment in 2004. Private equity cleantech was not spared the unfavourable fundraising conditions in 2009, and a smaller number, 77 funds, began investing. Nevertheless, 2009 still saw a greater number of new cleantech-focused funds than in 2006, and the decline from the 2008 figure was less pronounced than that observed across the entire private equity fundraising landscape. A similar trend can be seen for funds focused purely on cleantech. These funds account for 28% of the total number of funds closed since 2004 that allocate some proportion of their capital to cleantech investments. The number of pure cleantech funds commencing investment grew from just five in 2005 to 33 in 2008, while 16 pure cleantech funds began investing in 2009.

These figures demonstrate how the private equity cleantech sector has been expanding significantly over recent years. Despite the global economic crisis, which hampered fundraising in 2009, private equity cleantech looks set to continue its expansion as a sector, with 91 pure cleantech-focused private equity funds on the road seeking an aggregate \$26.7 billion in capital commitments (as of March 2010). This is significantly more than the 78 pure cleantech funds on the road seeking \$19.9 billion at the same time last year.

As most cleantech funds have been raised in recent years, they are sitting on a large amount of dry powder readily available for investment. We estimate that the total dry powder for private equity funds focusing solely on cleantech currently amounts to \$12.0 billion. Given the welcome improvement in the global economy, we anticipate a successful year for the private equity cleantech sector in 2010.

Fig. 1: Number of Cleantech Funds Commencing Investment by Vintage Year

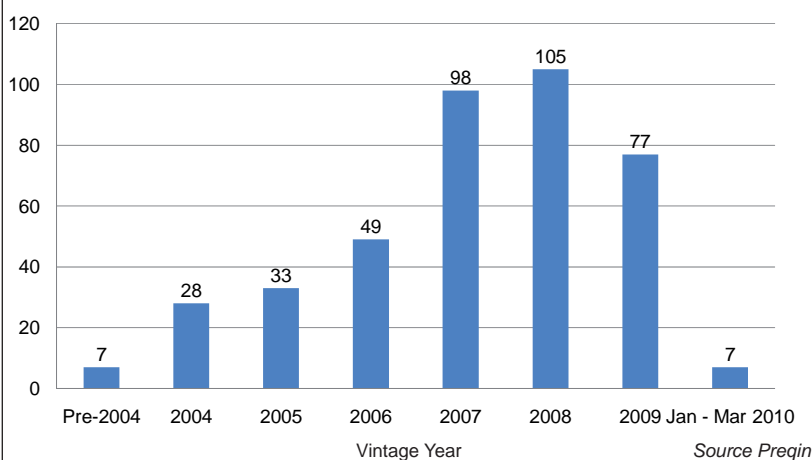
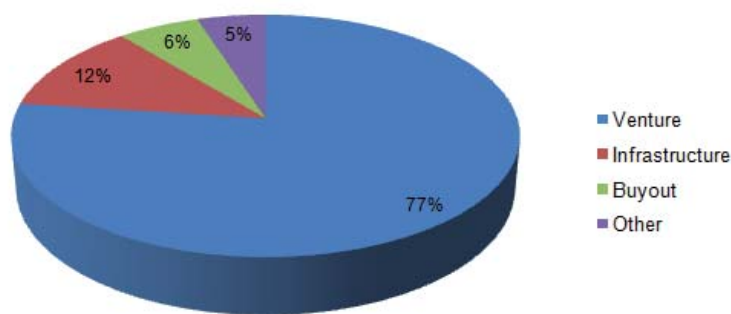


Fig. 2: Breakdown of Private Equity Cleantech Firms by Primary Fund Type Focus



What Types of Manager Are Raising Cleantech-Focused Funds?

Fig. 2 illustrates that of the fund managers involved in investing in private equity cleantech, the vast majority (77%) could be considered venture capital firms, reflecting the innovative nature of the cleantech industry. 12% of firms predominantly manage infrastructure funds while 6% manage buyout funds. The remaining 5% of firms manage other funds, including mezzanine funds.

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Where Are Managers Based?

Fig. 3 displays a breakdown of private equity cleantech firms by primary regional location, revealing the global nature of the sector. 45% of private equity fund managers that invest in the cleantech sector are based in North America, while 36% reside in Europe.

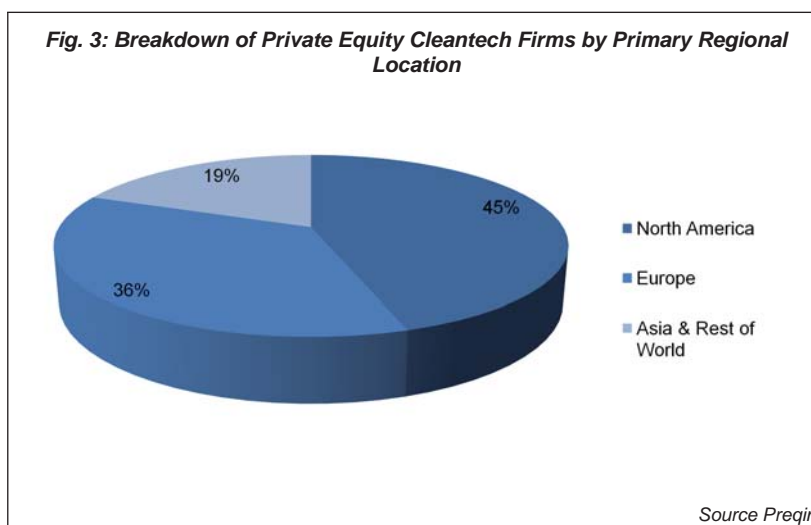
Asia and Rest of World is home to a significant 19% of all cleantech investors, demonstrating the importance of emerging markets within this growing industry. Both China and India are gaining ground in the cleantech space and possess well laid-out objectives for their use of renewable energy, while Israel is fast becoming an important centre of activity for clean technology innovation.

Institutional Investor Interest in Private Equity Cleantech

The cleantech sector offers the opportunity for institutional investors to make environmentally responsible investments and therefore make a significant contribution to the sustainability of the Earth's environment and natural resources. Private equity cleantech funds also offer the potential for good returns from a market that has undergone significant expansion in recent years and looks set to continue growing in the near future. Preqin's Investor Intelligence database currently shows that 19% of active investors in private equity have invested in at least one cleantech fund previously or have shown an active interest in the sector. As a further measure of the growth in popularity of private equity cleantech as a sector, this figure stood at 11% one year ago.

Private equity cleantech has become an attractive investment sector for a diverse range of institutional investors in private equity. Public pension funds account for 19% of all institutional investors to have shown an appetite for private equity cleantech and form the most numerous investor type. Indeed, a number of the most significant investors in this sector are public pension funds, which often invest in private equity cleantech through specific environmentally responsible investment mandates. Fund of funds managers comprise 18% of those interested in cleantech investment opportunities, while banks also feature prominently, forming 10% of the total.

Fig. 3: Breakdown of Private Equity Cleantech Firms by Primary Regional Location



Compared with data from one year ago, European investors now comprise a slightly larger proportion of all institutional investors in cleantech, with 43% of the total compared with 36% in 2009. North American LPs account for 41% of investors in the sector, and Asia and Rest of World-based investors comprise the remaining 16%.

Summary

The growth of the private equity cleantech sector is being driven by numerous factors including an increased global awareness of the environmental impact of human activity and a pressing requirement for the better management of the Earth's resources. Investors have identified the cleantech sector as an area of potential profitability, which has caused a rise in the number of operating cleantech private equity firms and institutional investors in the sector. Furthermore, while government-backed initiatives will provide a welcome injection of capital into the cleantech sector, a spending gap remains if important targets concerning emissions and renewable energy are to be achieved; a gap that can be filled by the private sector.

Private Equity Cleantech: Institutional Investors Overview



Investor Location

- The majority of institutional investors with an interest in cleantech are based in Europe and North America, with 84% of LPs that have an interest in the sector headquartered in these regions.
- 41% of investors interested in cleantech in 2010 are North American based. This is an increase of seven percentage points from 2009.
- The largest proportion, 43%, of investors showing an interest in cleantech in 2010 are based in Europe. The margin between LPs based in Europe and North America has been cut from 14 percentage points in 2009 to only two percentage points in 2010. Asia and Rest of World has the smallest proportion of investors with an appetite for cleantech, with 16% of these LPs based in the region.

Investor Type

- The cleantech sector has benefited from an increased awareness of climate change issues and responsible investing policies. It has become a more recognized investment space for limited partners and attracts a range of investor types.
- 18% of investors known to have invested in funds dedicated to cleantech are public pension funds. Corporate investors are the second most prominent investor type in pure cleantech funds and this group is primarily made up of energy companies.
- Although endowment plans only account for 1% of known investors in purely cleantech-focused funds, they often gain exposure to the sector through diversified funds with a partial focus on cleantech opportunities.

Fig. 4: Location of Investors in Cleantech Funds

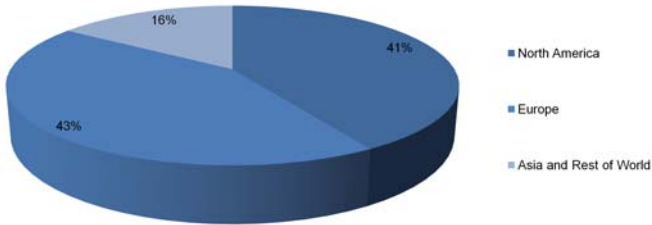
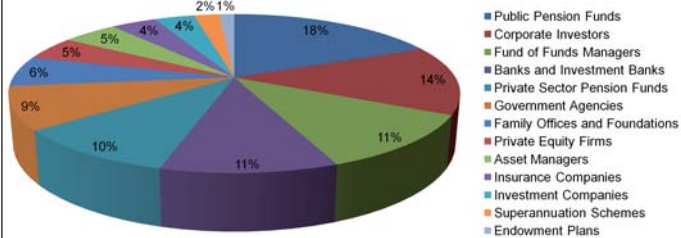


Fig. 5: Breakdown of Investors Known to Have Invested in Pure Cleantech Funds by Type



Private Equity Cleantech: Fund Manager Universe Overview

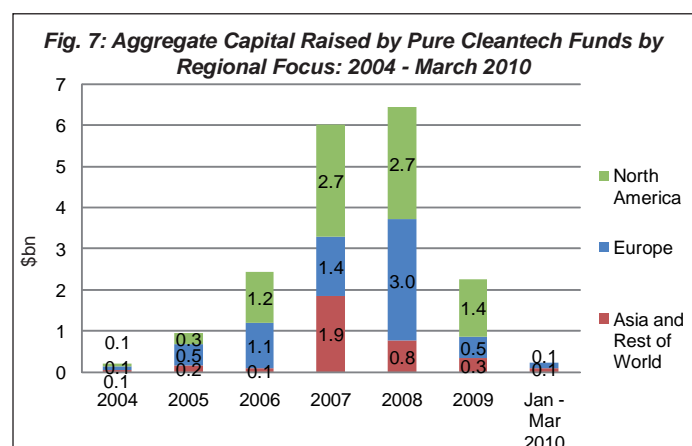
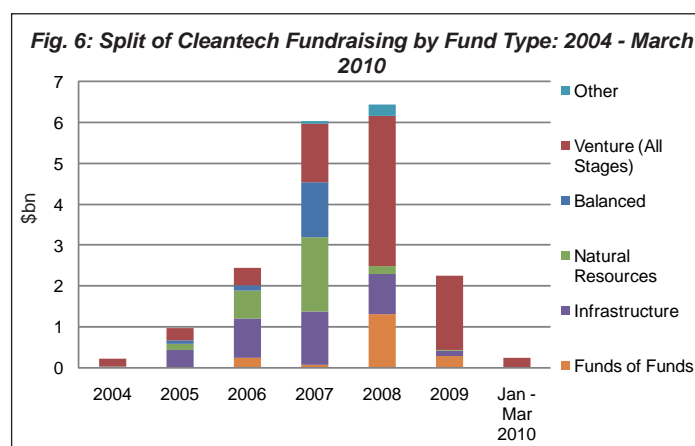
For the purpose of analysis, Preqin has categorized private equity cleantech funds into pure cleantech funds and diversified funds. Pure cleantech funds target cleantech and cleantech-related sectors only, while diversified funds are more generalist vehicles that include cleantech as part of a wider strategy.

Fundraising by Fund Type

- In the period between 2004 and 2008, pure cleantech funds consistently accounted for around 30% of all cleantech funds closed each year, by number. This figure then dropped considerably from 31% in 2008 to 21% in 2009.
- Given the innovative nature of the cleantech industry, it is unsurprising that venture capital funds have a large market share compared to other fund types within the cleantech sector. Such vehicles raised over \$8 billion between 2004 and March 2010, representing 43% of all pure cleantech capital raised in this period.
- Venture capital funds with no specific stage focus have consistently held the largest share of the cleantech venture capital market, with total capital commitments increasing almost nine-fold between 2006 and 2008, from \$280 million to nearly \$2.5 billion. Early stage venture capital funds raised \$366 million in 2007 and \$493 million in 2008; however, no early stage fund reached a final close in 2009. Expansion funds raised a record \$629 million in 2009, a rise of almost 20% on the previous year.

Fundraising by Region

- Aggregate capital raised by North American-focused funds in 2004-2006 was similar to the aggregate capital raised by their European counterparts. However, in 2007, North American-focused pure cleantech vehicles secured nearly double the amount raised by European funds, raising \$2.7 billion. Fundraising for European-focused funds improved significantly the following year, when the aggregate capital raised by such funds exceeded that raised by North American-focused vehicles.
- The aggregate capital raised by pure cleantech funds focused on Asia and Rest of World did not exceed \$200 million in the years 2004-2006. However, in 2007 such funds attracted \$1.9 billion in capital commitments. During 2008, pure cleantech funds focusing on Asia and Rest of World raised nearly \$800 million and the following year secured slightly over \$300 million, representing a decrease of approximately 60% from the previous year.
- As a result of the economic downturn, fundraising for all pure cleantech funds decreased significantly in 2009, with the aggregate capital raised by funds focusing on each region decreasing by at least around 50%.

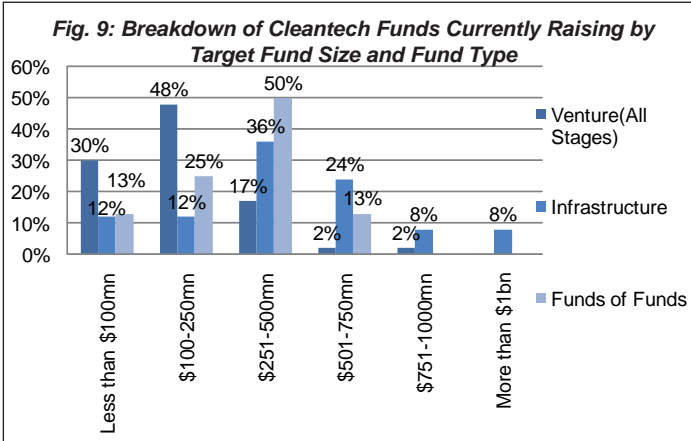
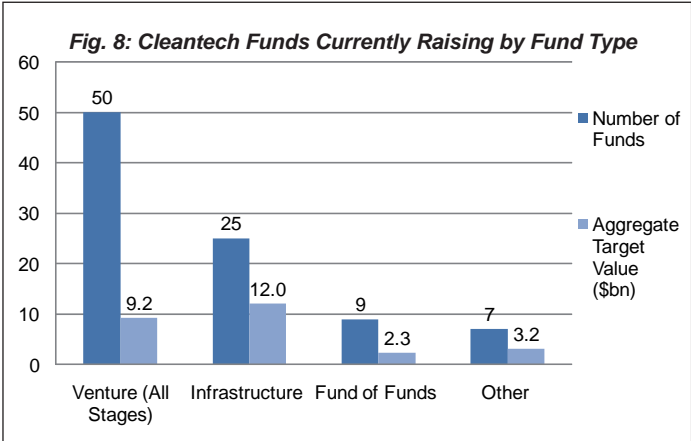


Private Equity Cleantech: Funds Currently Raising



Funds Overview

- There are 91 private equity funds currently in market that are focused solely on cleantech, which represents 5.7% of all private equity vehicles currently raising capital, by number.
- The aggregate target being sought by pure cleantech private equity funds stands at \$26.7 billion, which is 4.1% of the total capital being sought by all private equity funds currently on the road.
- Venture funds are the most abundant of all pure cleantech fund types, with 50 such funds currently seeking \$9.2 billion in investor capital. The next most numerous fund type is infrastructure, with 25 funds seeking \$12 billion, 45% of the aggregate target being sought.
- 78% of pure cleantech venture funds are currently targeting \$250 million or less, while only a small number are targeting more than \$500 million.
- Three-quarters of cleantech-focused funds of funds are targeting between \$100 million and \$500 million in capital commitments.
- For cleantech-focused infrastructure funds currently on the road, larger fund sizes are common, with 40% of pure cleantech focused infrastructure funds targeting more than \$50 million. There are two infrastructure funds currently targeting more than \$1 billion in capital commitments.



Private Equity Cleantech: Fund Manager Universe Overview

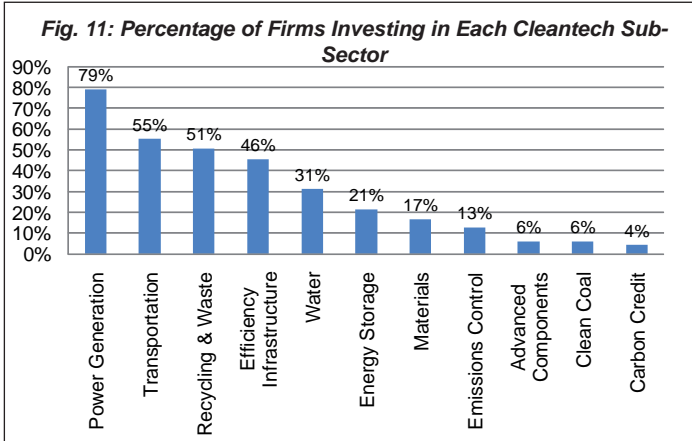
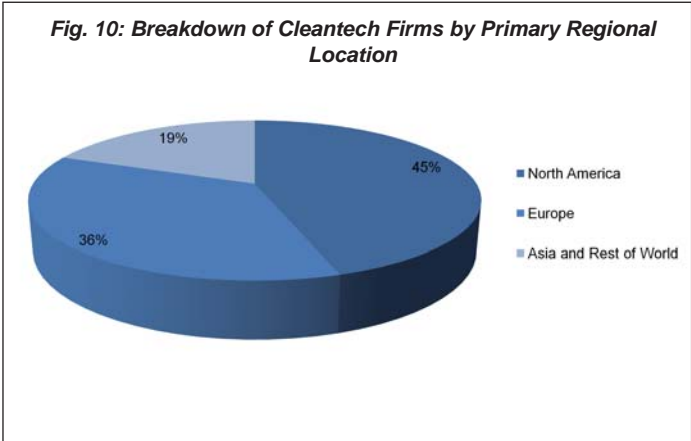


Fund Manager Location

- Preqin has identified a total of 470 private equity fund managers that invest in cleantech and its related industries. 212 of these managers are primarily based in North America, 45% of the global total. Of these 212 firms, 191 are based in the US.
- 169 cleantech private equity firms are primarily based in Europe, accounting for 36% of the global total. 57 of these firms are based in the UK.
- Asia and Rest of World is the primary home to the remaining 89 fund managers, accounting for 19% of the global total.

Industry Focus

- Power generation, which concerns all forms of clean power and renewable energy, is the most popular cleantech subsector across the private equity fund manager universe, with a significant 79% of all fund managers targeting this area for investment.
- Transportation forms an investment focus for 55% of all private equity fund managers investing in cleantech. The transportation subsector encompasses electric/hybrid vehicles, fuel cells and biofuels.
- 51% of firms invest in recycling and waste management, a subsector that includes waste-to-energy conversion. Efficiency infrastructure, particularly improvements in grid systems, forms an investment target for 46% of managers.



The 2010 Preqin Private Equity Cleantech Review

The 2010 Preqin Private Equity Cleantech Review is the ultimate guide to this important and growing sector of the industry, featuring detailed analysis, comprehensive fund listings, profiles for the most important fund managers and institutional investors worldwide, plus much more.

The Review is a vital tool for all those raising funds, and for professionals managing or advising on cleantech assets. This year's edition features a large amount of exclusive information gained directly from fund managers and investors. It is the most comprehensive source of global data and analysis available today.

Key features of this publication include:

- Detailed analysis examining the history and development of the industry, fundraising trends, performance analysis, fund manager universe, institutional investors, fund of funds.
- Profiles for 470 cleantech-focused private equity firms, including direct contact details, firm investment strategies, recent deals, fund details and more.
- Profiles for over 150 institutional investors in funds, including investment plans, sample investments and direct contact details.
- Listings for all funds raised historically, funds currently raising, performance metrics for over 130 funds, league tables for biggest firms.
- Covers venture capital, infrastructure, buyout, funds of funds, and other PE firm types focusing on the sector.

Benefits of this year's publication include:

- Wide-ranging analysis will help you understand the latest market trends and is essential for producing reports, presentations and marketing materials.
- Our detailed profiles will save hundreds of research hours looking for firm or investor backgrounds and contact details.
- Most comprehensive report available today, with exclusive information all compiled by our team of dedicated analysts via direct contact with firms and investors.

More information:
www.preqin.com/cleantech

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2010 Preqin Private Equity Cleantech Review: Order Form

This year's Private Equity Cleantech Review is the ultimate guide to this important sector, featuring detailed analysis and profiles for all different aspects of the industry, including:

- Detailed analysis examining the history and development of the industry, fundraising trends, performance analysis, fund manager universe, institutional investors, fund of funds.
- Profiles for 470 cleantech focused private equity firms, including direct contact details, firm investment strategies, recent deals, fund details and more. Also includes profiles for over 150 institutional investors in funds, including investment plans, sample investments and direct contact details.
- Listings for all funds raised historically, funds currently raising, performance metrics for over 130 funds, league tables for biggest firms.
- Covers venture capital, infrastructure, buyout, fund of funds, and other PE firm types focusing on the sector.



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Preqin - Scotia House, 33 Finsbury Square, London, EC2A 1BB
Preqin - 230 Park Avenue, 10th floor, New York, NY 10169

w: www.preqin.com / e: info@preqin.com / t: +44 (0)20 7065 5100 / f: +44 (0)87 0330 5892 or +1 440 445 9595