point of view

Economic turmoil catches cleantech
After meteoric rise, VC funding of cleantech plunges

Following three years as one of the most highly funded sectors, investors take pause amidst uncertain and challenging conditions.

Highlights

1. Near stoppage in mega-rounds for solar energy companies.
2. VC exit climate remains poor: just two VC-backed IPOs since Q3 2008, M&A activity down sharply.
3. Stimulus plan cash grants in lieu of investment tax credits likely to kick in late 2009.

Cleantech companies under pressure as perfect storm of challenges converge

Solar investment drop-off
Expansion-stage VC investment in capital-intensive solar energy companies comes to a halt, pulling down overall cleantech investment, as mega-rounds of funding are sidelined.

Investors stuck in wait-and-see mode
In short-term horizon, VCs and their cleantech companies brace for severe measures through exit drought and credit crunch–tightened VC funding. Anticipated stimulus activity and forthcoming energy legislation may draw new investors to fill funding gap created by tax equity investors who receded the market.

Stimulus effect unlikely to be impactful until late 2009
Uncertainty surrounds how and when stimulus cleantech monies will be disbursed, with loan guarantees and cash grants expected to gain momentum in second half of 2009.

VC funding in cleantech falls off as investors reassess how banking crisis, recession, and stimulus plan unfold.

Investment in solar energy companies, the prime driver of cleantech's fast-rising investment trend in the last two years, nearly dried up in the first quarter…

Cleantech investors take pause

The credit crisis and economic downturn have converged to exert considerable pressure on venture-backed cleantech companies and their investors. VC capital funding in cleantech companies dropped 84% in the first quarter of 2009 to $154 million in 33 deals, down from $971 million in 67 deals in the fourth quarter of 2008. The funding contraction followed a run of steady growth in the last three years, and represented the lowest level since the fourth quarter of 2005, when venture funding in cleantech stood at $120 million in 20 deals. VC investment across all sectors fell 47% from $5.7 billion in the fourth quarter of 2008 to $3.0 billion in the first quarter of 2009—marking the lowest level of venture investment in twelve years.

A confluence of challenges in late 2008 and into 2009 contributed to the investment pullback. Venture capitalists have been choked by a near stoppage of exits. There were no IPOs of VC-backed companies in the first quarter of 2009, and none in the previous quarter—the first time there have been back-to-back quarterly IPO shut-outs since the National Venture Capital Association has been tracking this activity. As of late April, there were two VC-backed IPOs in Q2 2009, while no US VC-backed companies managed an initial offering on foreign exchanges. On the M&A front, deal activity for VC-backed companies was also down. Across all industry sectors, the first quarter of 2009 saw a further downturn in deals, with 56—13 of which disclosed values totaling $645.3 million. That compared to 61 deals, 17 of which were disclosed at a total value of $2.4 billion in the fourth quarter of 2008.

The resulting exit drought has placed pressure on valuations of VC-backed companies, leaving venture capitalists and start-up executives in a quandary of competing needs: increasing liquidity against securing offers at acceptable valuations. Pressure to secure funding—particularly in solar and biofuels companies—may trigger strategic investment and industry consolidations.

Solar funding drop pulls down cleantech

Investment in solar energy companies, the prime driver of cleantech's fast-rising investment trend in the last two years, nearly dried up in the first quarter, drawing $14.4 million in two deals compared to $460 million in 12 deals in the fourth quarter of 2008, a 97% drop in funding. VC investment in the solar sector comprised 23% of cleantech investment in 2007 and 45% in 2008. In the first quarter, it fell to 9% of total first-quarter cleantech funding. Funding of expansion-stage solar companies had attracted the healthiest amount of venture investment. In 2008, VCs invested $1.35 billion in 23 solar energy deals, or 73% of the total $1.84 billion in 55 deals with solar companies.

Venture investment in alternative fuels, at $27.6 million in 6 deals in the first quarter of 2009, fell 69% from $87.8 million in 11 deals in the fourth quarter of 2008. VC investment in other areas of cleantech which typically do not require major rounds of funding have slipped as well, but not as precipitously as solar. The pollution and recycling sector (including water technology) drew $31.5 million in 6 deals, down 28% from $43.9 million in the fourth quarter of 2008.

The waiting game

When the American Recovery and Reinvestment Act was signed in February, the Department of Energy announced that it would accelerate the process of disbursing monies of grants and loan guarantees through more simplified applications and streamlining of the underwriting process. It set a goal of disbursing 70% of its funds by the end of 2010, with approvals for loan guarantees applied for under the 2005 Energy Act beginning in May, and loan guarantees under the provisions of the stimulus plans ($6 billion for renewable energy projects intended to guarantee up to $60 billion in loans) beginning to be disbursed in the early summer. The Treasury Department announced that applications for cash grants in lieu of investment tax credits for renewable properties would be available by July, with grants disbursed no sooner than 60 days after an application's approval.

Unclear timing of stimulus plan disbursements adds to investor uncertainty.

"Frankly, there is real promise in the stimulus supporting clean technology, but at this point nobody really knows how and when it will play out."

— George Sterzinger, executive director of the Washington DC–based Renewable Energy Policy Project

Yet for cleantech companies already grappling with a credit squeeze, fewer tax equity investors and a sharp fall-off in venture capital investment, 2009 is turning into a long and painful waiting game. As of late April, at least one loan guarantee (applied for under the 2005 Energy Policy Act, not the Recovery Act) was granted: a $535 million guaranteed loan to Freemont, CA–based Solyndra, a solar energy-systems maker. According to the government's website, Recovery.gov, as of April 17, federal agencies receiving funding under the Recovery Act have $71.2 billion available in obligations to disburse. Of this amount, $15.4 billion has been paid out. Recovery.gov also cites that the Department of Energy has $3.0 billion available, with only $78,892 so far paid out. "Frankly, there is real promise in the stimulus supporting clean technology, but at this point nobody really knows how and when it will play out," said George Sterzinger, executive director of the Washington DC–based Renewable Energy Policy Project.

Clearly, current economic pressures have given venture capitalists and their investors pause to see how much—or how little—these conditions will improve. Meanwhile, VCs are reassessing funding priorities and, where necessary, placing projects on hold and tightening costs through what is shaping to be evermore difficult times.

Will cash grants attract new investors into renewables?

In addition to the loan guarantee for renewable and alternative energy manufacturers, the stimulus plan provides an option for renewable energy manufacturers to receive a cash grant from the Treasury Department covering 30% of the cost of a project in cash in lieu of the currently available 30% investment tax credit (ITC). "There are many small and large wind power projects in development which are now preparing to go ahead, building into the cash grant provision of the stimulus," Sterzinger said.

It may not be enough for companies with highly capital-intensive projects on hold, struggling to find investors or credit sources to cover the remaining balance of the project. But the Treasury cash grants may lure a new type of investor beyond the traditional investment bank or insurance company. "Even in the financial services market, which is experiencing consolidation and loss of tax appetite in 2008, more entities would be able to use the cash grant," said Karlynn Cory, senior energy and finance analyst at the National Renewable Energy Laboratory. "Beyond the financial services sector, we may see new types of renewable energy generator investors enter the space, especially thanks to the Treasury grants. These could include entities as diverse as utilities, real estate companies or other companies interested in a cash grant. The advantage is that they do not even need a tax liability to use them." Cory said. Applications and guidance for cash grants are not expected to be available until July, according to the Treasury department.

Looking forward: A long summer

Despite the promising government initiatives promoting cleantech industries through the stimulus plan, the timing of disbursal of monies has been somewhat vague. Meaningful numbers of Recovery Act guaranteed loans will most likely start being distributed in the second half of 2009. Cash grants in lieu of ITCs (assuming that applications are available in July, and that grant monies are distributed at least 60 days after the approval of an application) would therefore also not be available for disbursal until the third quarter. Other developments will take place this summer. The industry is anticipating funding opportunity announcements—which the DOE expects to make available in mid-June—for two smart grid investment programs emerging from the stimulus plan, which comprise $4 billion in funds for new technology development. Overall, therefore, it appears that most stimulus provisions affecting cleantech companies will likely be eventuated closer to the third quarter.

Despite a cleantech investment drop, the fundamentals driving the cleantech sector remain relevant

Q&A

Q: Which cleantech companies are most vulnerable to the current economic and lending conditions?

Right now, the companies most vulnerable continue to be those that are in the late and expansion stages which require large rounds of funding to expand their businesses, such as solar and biofuels companies.

Q: Was the 1Q 2009 drop-off in VC cleantech investment a one-off event, or the beginning of a trend?

It's too early to tell if the contraction in VC investment will continue into forthcoming quarters. What is certain, though, is that the fundamentals that drove cleantech growth over the last three years are still very relevant today, and that investors still have compelling reasons to believe that investments in this space continue to hold great promise—especially given the increased regulation and legislation supporting cleantech growth. That clean energy is at the center of the national agenda is also very promising for the sector.

Q: Where will future rounds of funding for solar companies come from—existing or altogether new investors?

A new wave of investment may be coming from strategic investments and overall consolidation, especially in solar companies. Despite the absence of significant cleantech investment from private equity funds in the past, PE investment may start flowing into the sector. However, these investors will likely base their decisions on the availability of guaranteed loans from the Department of Energy.

Q: Which sectors show the greatest promise for growth through 2009?

Companies focused on efficiency and a smart grid are well positioned to benefit from both private and public initiatives to reduce energy consumption, dependence on foreign oil, and greenhouse gas emissions. In addition to the stimulus plan, the upcoming energy bill is expected to raise the bar on efficiency and smart grid development build-out efforts.

Q: How has the government's push into cleantech as a national priority affected the overall strategy and outlook of VC-backed cleantech companies?

Cleantech has in some respects drifted from the traditional VC game plan, in that its investors are embracing government influence of their industries. In cleantech, we are seeing a new generation of VC-backed companies forging public-private relationships and realizing a need to have a keen understanding of political and governmental developments affecting their companies. Cleantech companies are intensely interested in what's being deliberated on Capitol Hill and in the state legislatures. Although investors demand that business models stand on their own in the absence of governmental subsidies, business strategies of some later-stage investments that had not previously been built around governmental initiatives are now looking towards these programs for survival.

Contact information

To have a deeper discussion about the implications of the stimulus package on cleantech industries, please contact:

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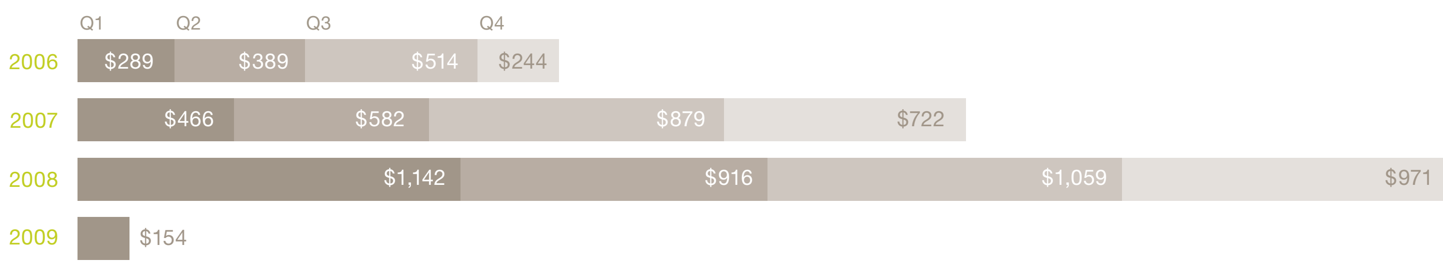
Q1 2009 Cleantech investments drop, halting momentum in sector

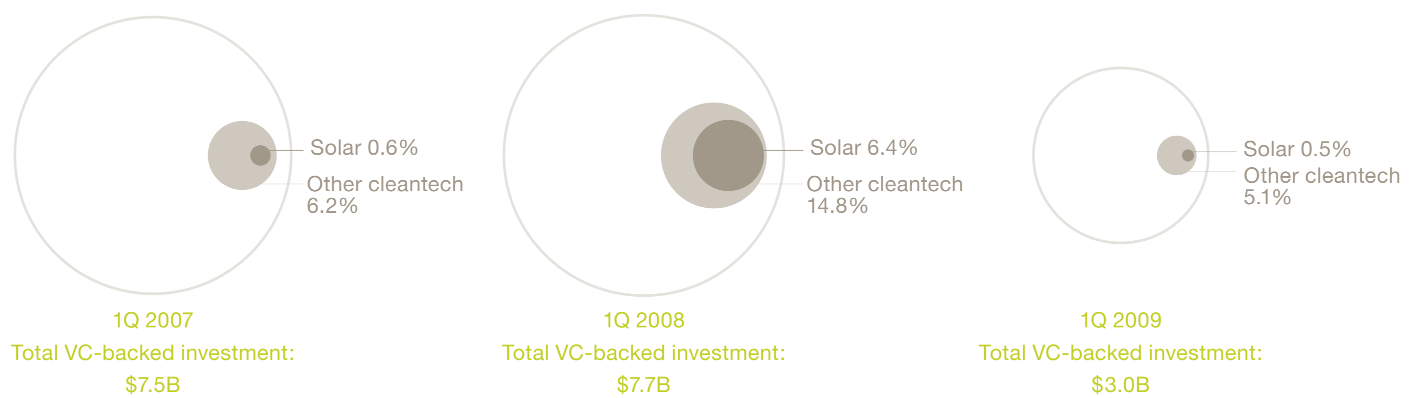
Solar investment ceases to drive cleantech sector investment

Total Cleantech investments ($ in millions)



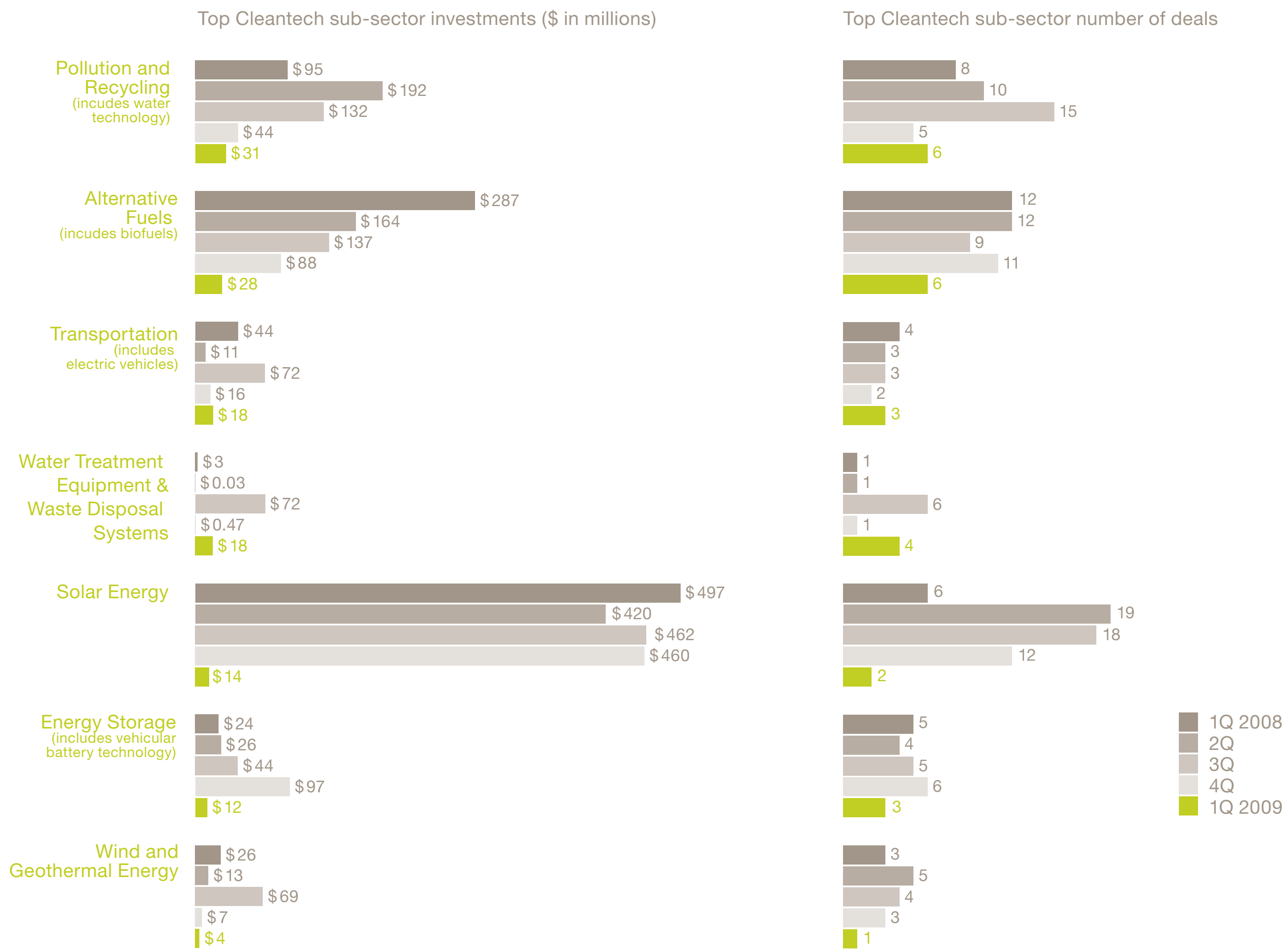
Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTreeTM Report (data: Thomson Reuters)

Percent of solar energy and other cleantech investment



Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report (data: Thomson Reuters)

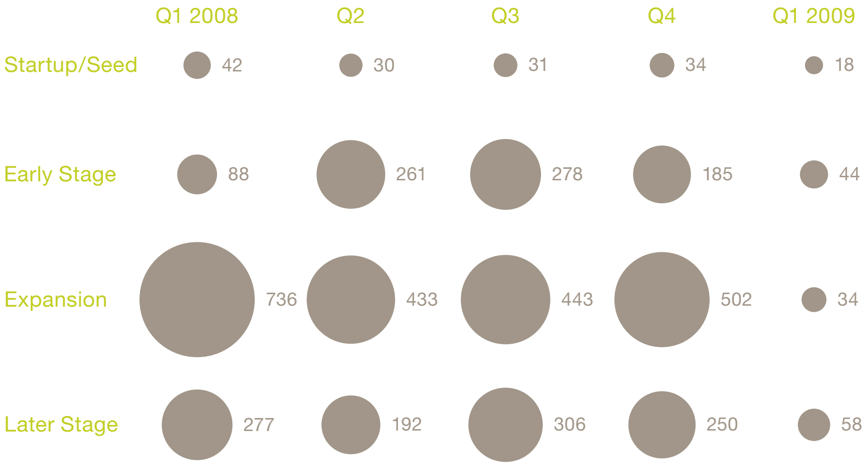
Investment contracts across all cleantech sectors in dollar investment and deal number



Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report (data: Thomson Reuters)

Across all sectors, startup/seed remains strong, all other stages down significantly

Cleantech investments by stage of development
(in millions of dollars)



The initial stage. The company has a concept or product under development, but is probably not fully operational. Usually in existence less than 18 months.

The company has a product or service in testing or pilot production. In some cases, the product may be commercially available. May or may not be generating revenues. Usually in business less than three years.

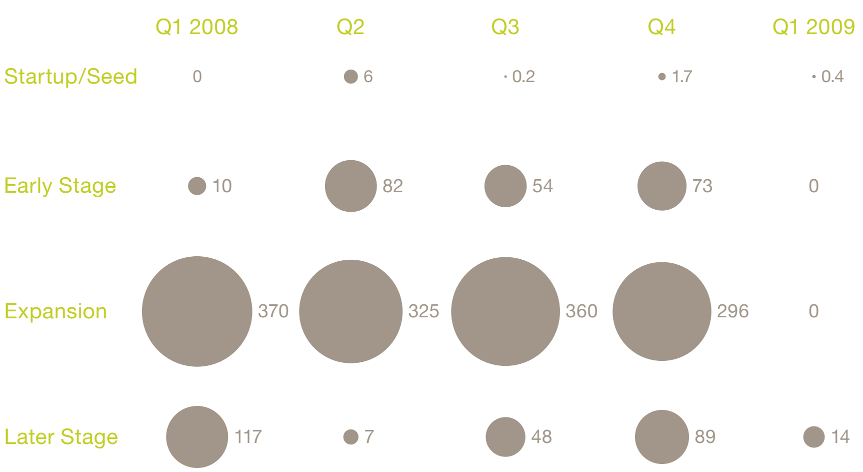
Product or service is in production and commercially available. The company demonstrates significant revenue growth, but may or may not be showing a profit. Usually in business more than three years.

Product or service is widely available. Company is generating on-going revenue; probably positive cash flow. More likely to be, but not necessarily profitable. May include spin-offs of operating divisions of existing private companies and established private companies.

Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report (data: Thomson Reuters)

Solar investment rounds down in all stages

Solar investments by stage of development
(in millions of dollars)



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