



The Venture Power Report

The **Venture Power Report** is devoted to VC investing and the dynamics of energy and power markets - covering alternative fuels, solar power, batteries, and fuel cells. **Venture Power** focuses on investor opportunities in renewable energy technologies, new energy markets, and start-up exits.

From the heart of Silicon Valley, this newsletter reaches thousands of VCs, CEOs, and Senior Technologists. Contact Eric Wesoff with comments or to subscribe: wesoff@greentechmedia.com

2007 VC in Renewable Energy Summary

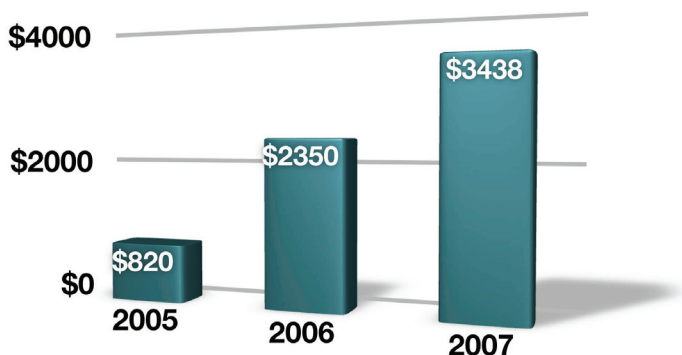
Total VC investment in Renewable Energy in 2007 was \$3.43B, up 50% over 2006. Solar led with an immense \$1.05B total, but all sectors are receiving investment and all are being tested for venture returns.

2007 VC Investment in Renewable Energy totals:

VC Investment in RE by Sector					
Renewable Energy Sector	Total VC in 2007 (M\$) (# deals)		Notable Deals		
Solar	\$1052.1	(71)	Heliovolt SolFocus	\$101M \$70M	CIGS for BIPV CSP
Biofuels	\$796.2	(44)	Amyris Imperium	\$70M \$113M	Synthetic biology Biodiesel
Batteries	\$433.9	(16)	A123 Project BP	\$70M \$230M	Li-ion EV battery infrastructure
DR / EE / Smart Grid	\$419.1	(34)	Gridpoint ICE Energy	\$48.5M \$25M	Energy Management AC and load shifting
Wind / Tidal / Geo	\$201.2	(16)	Everpower TPI	\$55M \$22M	Wind projects Composites for wind
Coal Tech	\$176.1	(8)	GreatPoint CoalTek	\$100M \$33M	Coal gasification Better use of rank coal
NG Transport / ICE Tech	\$152.0	(10)	Think Tesla	\$60M \$45M	Electric Car Electric Car
Fuel Cells	\$121.0	(16)	Lilliputian Clearedge	\$20M \$19.5M	Micro FCs, butane fuel KW-scale FCs
Lighting Efficiency	\$86.5	(7)	LLF Element Labs	\$16.5M \$12.8M	LED lighting LED lighting
	\$3,438	(222)			

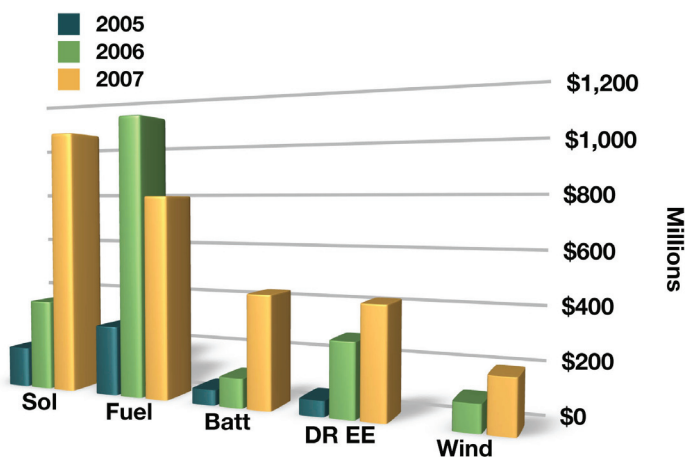
In compiling our annual deal numbers, we are strict in what qualifies as a VC deal and what qualifies as an alternative energy deal; debt financing or project finance is not tallied.

Full Speed Ahead for Energy VCs (\$M)



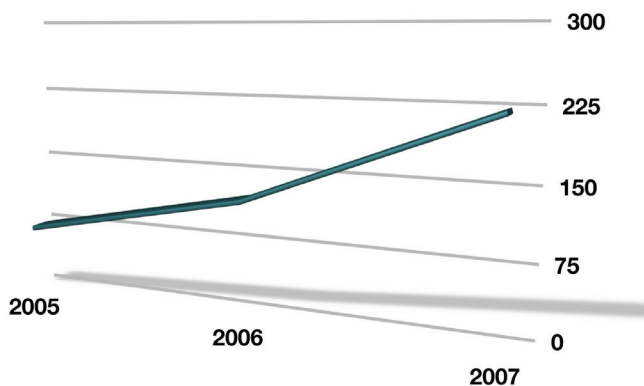
VCs guided more than \$3.4 Billion dollars into renewable energy start-ups in 2007, up 50% from the previous year. Venture Power forecasts this figure will remain steady over the next two years.

The Year of Solar VC



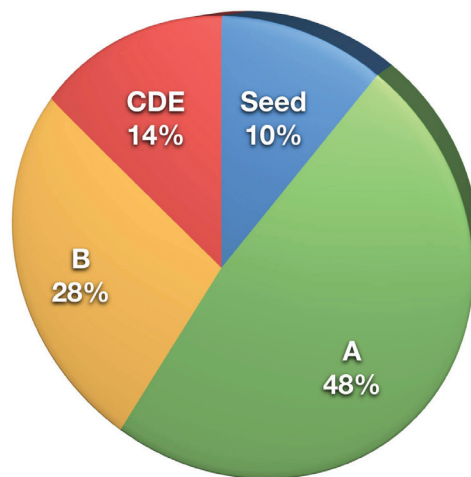
If 2006 was the year of biofuels, then 2007 was the year of solar for VC investors, with more than \$1 Billion invested in solar technologies and services. Energy efficiency and battery technologies also saw strong attention from VCs in 2007. Venture Power sees continued investor attention in solar power and energy efficiency in 2008.

Busy VCs - Number of VC Deals in RE



2007 saw a total of 222 VC funding rounds, almost double the previous year, with solar and biofuels leading the way. Despite a high average round size of ~\$15M, the median round size remained steady, indicating some sanity in the VC world. In a VC environment favoring late-stage investment, VC investors still put much of their effort into Seed and Round A financing in renewables.

Early Rounds Rule

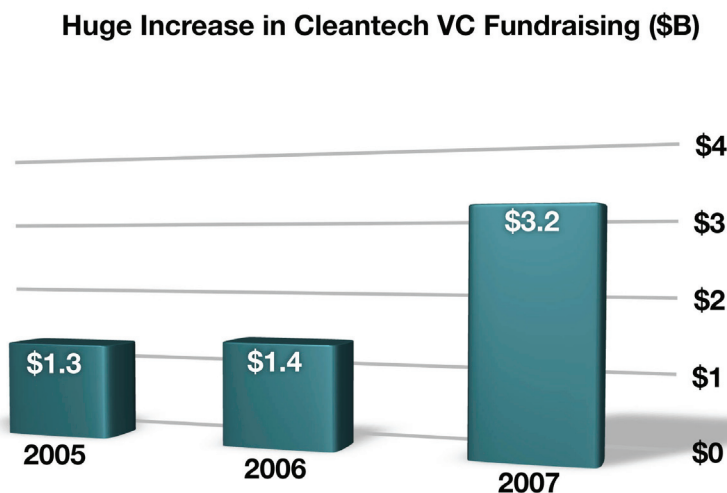


2008 – More VC, More Consolidation, and the Usual Start-up Shake-ups

2008 is going to see steady VC investment in all RE sectors with more investment rounds and lower average round sizes.

- ▶ VC-funded solar, coal gasification, and biofuel start-ups are going to build volume-scale plants and will need hundreds of millions of dollars. This money will come from a mix of VC, PE, and RE project finance funds.
- ▶ Solar and biofuel firms will raise capital on public markets but a few IPOs will experience Imperium-like delays, or will wait until after the US election.
- ▶ VCs can only pull a few levers at underperforming portfolio firms, usually involving personnel and money, so expect more layoffs and boardroom carnage as we've seen at Tesla, Miasolé, and Imperium – standard events at VC funded start-ups.
- ▶ At the same time, expect more funding, more new technologies, more entrepreneurs, and more revenue in clean energy in 2008.

Dedicated Cleantech Fund Closings 2005-2007



New Cleantech Funds for 2007

Cleantech Funds Closed in 2007		
Firm	Close	Focus
ABP and PGGM	\$672M	Clean technology and renewable energy
Altira Group	\$250M	Energy
Blue Tip Energy	\$149M	Energy-focused inaugural PE fund
Braemar	\$250M	Expansion stage energy
Capricorn Ventures	\$149M	Belgium-based cleantech
Chevron	\$75M	Corporate venture arm
Clean Dev Mechanism Fund (China)	\$3B	Cleantech projects in China
Cleantech Ventures (Australia)	\$50M	Cleantech
CMEA Ventures	~\$400M	Strong focus on cleantech
Craton Equity Partners	\$120M	First-time fund focused on cleantech
Emerald Technology	\$220M	Cleantech TransAtlantic
EnerCap Capital Partners (CZ)	\$110M	RE projects in Central, SE Europe, first close
Energy Capital Investments (US)	\$100M	Alternative energy projects, funded by Najafi
EnerTech Capital	\$75M	Expansion-stage energy companies
Environmental Tech	\$65M	London-based cleantech
E-Synergy	\$60M	Seed stage
Expansion Capital	>\$100M	Expansion capital opportunities in cleantech
Firelake Capital	\$100M	Private sector investments in cleantech
Hg Capital	\$425M	Renewable power in Europe
Israel Cleantech	\$15M	Cleantech
Kleiner Perkins	~\$200M	Green technologies
Ludgate Environmental Fund (UK)	\$50M	Later stage cleantech, AIM-listed
Masdar Cleantech	\$250M	Abu Dhabi based cleantech
NextGen Biofuels Fund (Can)	\$500M	Canadian gov't funding managed by SDTC
Nomura NECTV	NA	Energy and Clean Technology Ventures
Noventi	\$100M	Greentech
Oasis Investment Fund (Israel)	\$30M	Solar and water in the Negev
OPEC	\$750M	Research, investment in carbon sequestration
Piper Jaffray	\$60M	Cleantech fund of funds
Renewable Ventures	\$100M	Solar and renewable energy projects
SETVP Robeco (N), Chrysalix JV	\$73M	EU green energy and climate mitigation firms
SAIL Venture Partners	\$100M	Focus on large markets including cleantech
Southern Cross	\$142M	Clean energy investments in Australia and NZ
Swiss Re	\$444M	Clean energy fund
Technology Partners	\$300M	Already invested in Tesla, et al. from this fund
Terra Venture Partners (Israel)	\$15M	Portfolio includes IQwind, Phoebus Energy
Tiandi Fund	\$40M	Chinese energy tech transfer
US Renewables Holdings	\$475M	Renewable power generation and clean fuels

Entries in **bold** are dedicated VC funds that closed in 2007. 2007's Green PE funds, fund of funds, and government green funds are listed but not included in the total.