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by: Michael Kanellos

For 2009, It's All About Smart Grid and Storage

With ethanol and fuel investing having exploded in 2007 and solar shining brightest in 2008, IBM has two words for you in 2009: Smart Grid.

Ethanol and fuel investing exploded in 2007. Solar went bonkers in 2008. And in 2009, the money is set to flow into smart grid companies.

"I'm more convinced than ever that it's just about to happen," said Drew Clark, of IBM's Venture Capital Group in an interview today. "Cleantech may be the only category [of venture investing] that is left relatively unscathed and [VCs] are looking to put new money into traditional IT type of companies and smart grid is exactly that."

Clark in some ways is a human weathervane of VC trends. IBM's VC group does not invest directly in startups. Instead, it meets with startups and VCs, tries to determine future trends and promising companies and then devises out ways to dovetail IBM's strategies and service divisions with these emerging ideas.

IBM then acts as a conduit for bringing these ideas to large customers. Thus, if Big Blue is excited about something, there is a good chance that a channel for bringing a new idea to market is already being assembled.

Smart grid is attractive on a number of levels. For one thing, a substantial amount of the power in the U.S. is wasted. UC Berkeley's Arun Manjumar recently said that the U.S. consumes 100 quads (or 100 quadrillion BTUs) of energy a year and 50 to 60 quads get lost as waste heat or by other means before it can be used. Smart grid technologies that can help shuttle around power loads over a network conceivably could put a dent in that.

Second, the technology better fits into the VC mold for building companies. Unlike solar or biofuel companies, most smart grid outfits don't need to build huge factories. They develop software or networking devices for controlling various aspects of power transmission or consumption.

Standout smart grid companies that have received VC funding in the past year include networks.com, Trilliant, GridPoint, eMeter, Silver Spring Networks, Smart Synch,

GainSpan, Grid Net and Onzo. Smart grid actually passed biofuels in the second quarter in the number of VC deals completed and then passed biofuels in the amount of money and number of deals in the third quarter, according to VenturePower, a newsletter published by Greentech Media.

Third, the grid right now is ... uh ... pretty dumb. It was made to send electrons in one direction and was not designed for two-way communication.

"Smart grid may be the largest cloud," said Clark. "It will be expensive, but that also means it will be lucrative" for companies selling networking gear.

Fourth, because smart grid doesn't really exist yet, the time exists for startups to set standards and practices. Energy storage, for instance, could be a lucrative area. Right now, many companies are talking mostly about planting energy storage facilities where power like solar or wind is generated. But why not put energy storage where it gets consumed, sort of the way Akamai figured out how to cache network data closer to consumers. [Side Note: We hereby reserving the acronym NASE for Network Attached Storage for Energy, for these types of devices.]

The market, however, will likely evolve in a different manner than the computer revolution. The customer base for computers and networking equipment was huge: companies with five to seven people need at least some services and hardware. Utilities, which are fairly finite, will be the main customers for smart grid technologies and they will conduct lengthy trials before massive deployments.

That will be good for IBM, Clark noted. Pacific Gas & Electric is not going to want to deal with a bunch of startups. You can imagine the scene, he joked: Hundreds of people outside of PG&E headquarters touting laptops with business plans. Instead, they will effectively look to large companies that can integrate a bunch of these technologies into a platform.