

Clean Technology Investments: Tremendous Opportunities and Unique Challenges for Venture Lawyers

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Investment in clean technology is no longer a niche play. According to information released at the Clean-Tech Investor Summit held January 23-24, 2007, venture dollars in this sector represented over 10% of the total venture dollars invested in 2006, the fastest growing sector, and experts predict that these investment totals will grow. With bipartisan political support on the issue and growing public interest in eco-friendly products, investment dollars continue to pour into the clean-tech market and new technologies are quickly moving from R&D or university labs to commercialization.

Venture capital investment in clean technology topped \$2.9 billion in 2006 according to data from the Ann Arbor, Michigan-based industry tracker, the Cleantech Venture Network. This represents a 78% increase over the 2005 investments of \$1.6 billion and a 140% increase over 2004 investments of \$1.2 billion. In 2006, IPOs from clean-tech companies more than doubled over the previous year, according to Skip Grow of Cowen & Company. Investment dollars have not been limited to the United States, as investors have invested heavily in Europe, as well as throughout China and India.

Clean Technologies

Clean technology represents a broad range of products and markets including technologies in alternative energy, such as wind or tidal power; advanced recycling technologies; residential and commercial solar projects; smart-grid technologies for the utility grids; electric or hybrid-electric transportation; advanced materials, including biodegradable plastics; water technologies; and alternative fuels, including biodiesel and ethanol. Clean energy projects continue to receive the most attention in the clean technology space, however the market appears to be expanding into a variety of applications and areas. Energy-related investments accounted for \$2.1 billion, or 74% of the total, with large investments in bio-fuel companies and new solar technology developers dominating the category, according to the Cleantech Venture Network. Investments in technology companies tackling recycling and waste totaled \$192 million and investments in clean transportation technologies reached \$164 million.

DowJones VentureOne has defined the clean technology sector as “companies that directly enable the efficient use of natural resources and reduce the ecological impact of production. Areas of focus include energy, water, agriculture, transportation, and manufacturing where the technology creates less waste or toxicity. The impact of cleantech can be either to provide superior performance at lower costs or to limit the amount of resources needed while maintaining comparable productivity levels.” As climate change and carbon taxes have entered into the human consciousness, so too have unique solutions arisen. This broad diversity of technology and seemingly limitless market potential makes investing ‘green’ a huge opportunity for ‘green.’

However, this boom in clean technology investment also offers a unique set of challenges for investors and companies in the space. Said Clean-Tech Investor Summit keynote speaker Steve Westly, “If you are going to be a player or an investor in the clean-tech space, it is absolutely critical to have a lawyer who understands the unique and regulated markets you have to play in.” This market represents a convergence of emerging technologies and old industries, extensive government regulation and involvement, global intellectual property strategies, and international markets. And without expertise in each of these areas, success may never be attained.

Presently, most clean-tech investments have needed some form of government assistance to be competitive – including tax subsidies and government mandates. Solar power installations in homes and

business could not compete in the marketplace without these subsidies. And investments in ethanol and biodiesel require continued government tax subsidies to compete with traditional oil company products. While the price of electricity from wind farms and solar facilities continue to fall, they still cannot directly compete with traditional power production.

Westly also noted at Clean-Tech that the current structure and relative age of the clean-technology industry leaves it poised for a wave of future consolidations and acquisitions. “The company that will be successful here,” said Westly, “may not be the one with the absolute best technology. It will likely be the company with a good technology and the ability to execute a plan to consolidate and partner within its respective industry – to create industry standard technology.” For example, in January 2007, the solar power industry saw SunPower finalize its deal to purchase Powerlight with aims to enhance profitability across the entire distributed solar power line. Such consolidation may come through purchases or joint ventures by established companies. Executives from both AES Corporation and Dow Chemical stated that new clean technologies for their companies could likely be developed externally and eventually acquired via direct acquisition or partnering.

Venture investment into the clean-technology space has been compared to investments in traditional life sciences – where a long-term product life cycles are the norm. For example, while technologies currently being developed to convert wave or tidal energy into electricity are now receiving provisional licenses from the Federal Energy Regulatory Commission, experts believe that any material energy production from these types of technologies are likely ten to fifteen years (or more) away. In addition, substantial power production from these alternative energy sources will require access to the grid and some level of partnership with utilities – a regulated partner that is often slow to embrace changes. Likewise, the transportation sector has recently seen changes with the introduction of hybrid vehicles, but consumers remain hesitant to give up performance to help the environment – hence the limited adoption of any full electric vehicles. Said one VC, “We have to throw out our models for some of these companies. We like the technology and the opportunity, but it is an industry of ‘ifs.’”

The “clean technology play” for a venture capitalist is one that likely requires involvement in the political process for any type of sustained success. Many of these clean technologies could not exist without some level of government assistance, and continuing that assistance while technology develops is crucial. “It’s very different from the business world, where you come in with a good idea and leave with a deal,” said Mark Baldassare, research director for the Public Policy Institute of California, a nonpartisan research group, in a January 28, 2007 New York Times article. The question, he said, is whether venture capitalists “have the patience to be part of the political process.”

Unique Challenges for Attorneys

As Steve Westly stated, in the clean technology space a lawyer with the right set of skills is crucial for investors and businesses to succeed. To capitalize, expertise in traditional energy and regulatory policy will remain crucial. In the clean-tech space, it is simply not enough to develop a great technology; you must navigate the regulatory waters and pay your lobbyist well. For example, development of the alternative fuel production will require a sustained government commitment to tax subsidies, fuel standard mandates, and project finance assistance. Solar project siting requires a partnership with state and local governments. A sustained commitment to the clean-tech space will require partnership with governmental entities and sidestepping of the potential challenges. Accomplishing these goals in a largely regulated marketplace requires a unique level of finesse.

Second, clean-technology is and will be closely linked with the traditional energy, automotive, chemical, and natural resources sectors and therefore will advance more rapidly from handshakes and partnerships rather than battles and turf wars. Today’s solar or wind farms are likely to be supported by

traditional utilities. The hybrid car industry grew from traditional auto manufacturers. And ethanol is being mixed with traditional gasoline and delivered to your pumps by traditional oil distillers (with a handsome tax break).

As Bob Hemphill Executive Vice President, Global Development of AES Corporation stated, “We are serious about the sector and that requires working together.” The clean-tech space will not grow in isolation from traditional companies, but must get them on board. Oil & Gas companies, auto manufacturers, and utilities hold assets with long lives – and clean technology adoption will not be as rapid as may be seen in other industries. But partnerships and collaboration may speed adoption of clean technology initiatives.

Third, the clean technology industry will be driven by new and developing technologies. Protection of that intellectual property will require an aggressive IP strategy and a systematic approach to ongoing development. Particularly, any IP strategy will need to take into account the substantial markets in both China and India, and the challenges that will result. The importance of these developing international markets cannot be understated, but the potential for investments to be lost due to a poor IP strategy are significant.

Finally, clean technology companies will require an expertise in emerging company issues. As money continues to be pumped into the sector, today’s great idea will need to become tomorrow’s sustainable venture. A lawyer will need to be able to assist any emerging company in the space, but also assist in the context of potentially ripe marketplace for consolidation. Financing a clean-technology company could require a blended strategy from traditional capital sources, venture dollars, private equity, federal grants, and others. Many clean-tech companies are capital intensive and faced with varied financing models. Clean-technology investments may require creative financing.

Conclusion

The Clean-tech bet has been made. And as new investors and companies enter the fray, a new set of challenges and obstacles will arise. According to one member of the VC community, new rules are now being written for clean-technology companies. “The energy, transportation, chemical, and fuel sectors are multi-billion dollar industries. Clean-tech is bringing something new to these old industries – and to be successful, you have to be ready for that challenge and that discussion.”