

Green IP: Avoiding Mistakes Of Technologies Past

Law360, New York (March 02, 2010) -- Green technology has become an increasingly significant force in today's economy. Venture capitalists, governmental bodies and other capital sources are pouring billions of dollars into green technology investments.

The return on these investments will depend in large part on the effectiveness of intellectual property protection strategies adopted by those pioneering the underlying science. To this end, green technologists have much to learn from the IP experiences of once-emerging industries, such as the semiconductor, software and Internet industries.

Selecting the Right Form of Intellectual Property Protection: Patent Versus Trade Secret

Most green technology innovations are protectable by either patent or trade secret law. An inventor of a green technology must choose which form of IP protection is best suited to his/her invention.

Patent law is available to protect "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. Abstract ideas, physical phenomena, collected data and items which are found in nature may not be protected by patent.

Trade secret law protects a broader subject matter than patent law. Anything that is maintained in secret from one's competitors, which if known would give a competitor a commercial advantage, is protectable under trade secret law.

For this reason, raw knowledge such as cost/pricing data, customer lists, marketing information and "negative data" (testing results as to what potential solutions do not work) are all protectable under trade secret laws, while they generally would not be protectable by patent.

As their predecessors in the semiconductor, software and Internet fields have learned, inventors of green technologies will need to make prudent choices between patent and trade secret protection for their inventions.

Public Disclosure

One important difference between patent and trade secret protection is the concept of public disclosure. Under the Uniform Trade Secret Act, information must remain confidential to receive protection. This requirement of secrecy does not apply to patents; in fact, one condition of patent protection is that the patented invention be disclosed to the public.

Patent applications filed with the United States Patent and Trademark Office are generally published 18 months after filing, even though the application process can take many months longer than this.[1]

Accordingly, if a patent application is published 18 months after filing and the USPTO ultimately refuses to issue the patent, any intellectual property rights in the innovation described in the patent application will be lost, since publication destroys the ability to rely on trade secret protection.

Furthermore, the public disclosure associated with seeking patent protection may educate a company's competitors as to the patented technology, possibly enabling a competitor to "design around" the patented technology.

And patents are only effective within the jurisdiction in which they are obtained: a competitor operating in another country may be able to use an invention patented in the United States, unless the inventor also obtains a patent in that other country.

Although there are strategies to deal with this situation, such as strategic patenting within those jurisdictions where the invention is likely to be practiced, or use of the U.S. International Trade Commission to bar entry into the United States of products that infringe a U.S. patent, these strategies can be complicated and expensive.

On the other hand, one advantage of patent over trade secret protection is the fundamental difficulty of maintaining the confidentiality of a technology — necessary for trade secret protection — while trying to use that technology in commerce. This requires rigorous application of adequate confidentiality policies and practices within the workplace, a task made more difficult by the fluidity of modern work forces.

Moreover, many inventions are susceptible to reverse engineering, and therefore cannot be kept secret. If the technology in question can be observed or reverse engineered when embodied in a product, such as electronic circuitry or a mechanical system, then trade secret protection may not be practical or even possible.

For these reasons, semiconductor manufacturers have generally found trade secret protection to be a more effective form of protection for manufacturing recipes and processes.

Thus, while semiconductor companies have patented specific techniques developed to overcome discrete fabrication problems, they have relied heavily on trade secret law to protect the recipes and process flows from which their semiconductor chips are manufactured.

Exclusivity of Protection

Another fundamental difference between patent and trade secret protection is exclusivity. A patent provides its owner with exclusive rights to a technology: "the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States." 35 U.S.C. § 154(a)(1).

The fact that a competitor may have independently developed a technology is not a defense to a claim for patent infringement under U.S. patent law. Under trade secret law, there is no such exclusivity right. If two competitors concurrently and independently develop a technology, both may legally exploit the technology.

This dynamic exposes a risk with relying on trade secret as opposed to patent protection:

If competitor A independently develops and patents a particular technology, while competitor B independently develops and protects the same technology as a trade secret, once a patent issues to competitor A, competitor A might be able to bar competitor B from practicing the technology — even if competitor B independently developed the technology at the same time or earlier.[2]

For this reason, recent emerging technology companies have tended to prefer patent protection over trade secret protection for their core inventions in most situations other than manufacturing processes.

Avoiding Past Mistakes in Developing and Managing Intellectual Property Portfolios

Some of the most notable mistakes made by pioneers of recent emerging technologies have involved failures to implement coherent IP strategies, particularly in the area of patent portfolio management. The mechanical collection of large volumes of patents does little to assure a company freedom to operate in a given field.

Likewise, regardless of the number of patents, unless a company's core technological developments are properly claimed under a well-reasoned prosecution strategy, the company may find others legally practicing its technology. Some of the more common missteps taken by emerging companies during recent years have included:

- Failing to exercise diligence in prosecuting patent applications. Inventors who did not promptly file patent applications all too often experienced the painful realization that prior art anticipating their invention was published during the delay.

- Failing to file patent applications in the United States in time to avoid a disqualification (on-sale bar) under 35 U.S.C. § 102(b). Many international companies were surprised to learn that when they filed an application in Europe, this did nothing to stop the on-sale bar under U.S. patent law.

Instead, an applicant must file a U.S. application within one year of an invention's first public use or sale within the U.S. in order to avoid the on-sale bar — an agonizing experience for a company who believes it owns a great set of patent claims, only to find out that those claims are anticipated and rendered invalid by its own products sold in the U.S.

- Failing to develop and implement rigorous and coherent patent programs. The main consequences here have included: (1) failure to file applications on core strategic inventions, and (2) overspending by filing applications without real tactical value to a company, including applications in countries of little or no strategic importance to the technology and/or the company who owns the technology.

Intellectual Property Protection Through Copyright and Trademark Laws

The software industry ushered in an expansion of copyright protection which will be useful to many green technology companies.

Initially understood to protect only printed materials, Congress affirmed in the Copyright Act of 1976 that copyright protection also extends to computer code. Companies developing software for distributing, monitoring and maximizing efficiencies in the usage of energy resources will find these copyright protections valuable.

In the area of trademark protection, global consciousness of human impact on climate change has elevated the commercial value for "green" marks.

As with past emerging technologies, such as the dot-com boom which saw surges in trademark registrations for marks including ".com", "i-...", and "e-...", the USPTO has seen a flood of applications for "green" trademarks that include terms like "green," "enviro," "eco," "organic" and "earth." And as in the dot-com boom, this has created problems for trademark registrants.

As the field becomes more crowded with green marks, the distinctive nature of any given mark from a competitor's mark diminishes, leading to consumer confusion.

Moreover, as with marks containing “.com”, “i-...” and “e-...” terms during the dot-com boom, the USPTO has shown resistance to green trademarks as merely “descriptive,” and therefore unqualified for trademark protection.

Where a desired trademark is merely descriptive of a good or service, the trademark will generally not be allowed. Because terms such as “green” and “eco” have become common usage for describing environmentally oriented goods and services, the USPTO has generally been rejecting these commonly used “green” elements within trademark applications.

Calls for Limits on Intellectual Property Protection in Efforts to Combat Global Warming

A number of proponents of green technology have argued that intellectual property rights (IPRs) stand in the way of international cooperation and progress on climate change.

Others have suggested that IPRs are a critical incentive for innovators to pursue their green technology ideas, fueling private sector investment in research and development of beneficial new technologies. Those who favor strong IP protection in the green technology sector appear to have the upper hand.

On June 10, 2009, the U.S. House of Representatives issued a “Statement of Policy Regarding Climate Change” explaining that “with respect to the United Nations Framework Convention on Climate Change, the President, the Secretary of State and the Permanent Representative of the United States to the United Nations should prevent any weakening of, and ensure robust compliance with and enforcement of, existing international legal requirements as of the date of the enactment of this Act for the protection of intellectual property rights related to energy or environmental technology...” Foreign Relations Authorization Act, Fiscal Years 2010 and 2011, H.R. 2410.

During the recent Copenhagen Climate Change Summit, although several proposals were submitted by participant developing countries seeking to reduce intellectual property protections on green technologies, none were adopted into the final Copenhagen Accord.

Indeed, on Dec. 7, 2009, just hours before the opening of the Copenhagen Climate Change Summit, the U.S. Department of Commerce announced the launch of the USPTO’s Green Technology Pilot Program to speed the processing of green patents. Docket No. PTO–P–2009–0038.

Under the Pilot Program, the first 3,000 green technology patent applications filed under the program undergo expedited examination procedures, with the goal of reducing the time to process qualifying applications from the typical 40 months to 12 months.

The Department of Commerce has indicated that the program may be extended and expanded in future years, suggesting that strong intellectual property protections such as those afforded by current patent laws will remain central to the development of green technologies in the United States.

Green technology has become, and will continue to be, a major force in our economy. As private and government investment increases for this sector, companies that heed the intellectual property lessons taught by the emerging industries before them will be best equipped to control and benefit from their green innovations.

--By Keith L. Slenkovich, WilmerHale

Keith Slenkovich is an intellectual property litigation partner in WilmerHale’s Palo Alto, Calif., office.

The opinions expressed are those of the author and do not necessarily reflect the views of Portfolio Media, publisher of Law360.

[1] There is a limited exception to the 18-month publication requirement where the inventor certifies that a counterpart patent application will not be filed in a foreign country that itself requires publication of patent applications. 35 U.S.C. § 122(b)(2).

[2] In the limited circumstance of a business method that was invented and practiced by a company more than a year before the priority date of a patent, the company may have a defense to an infringement claim based on the prior invention. 35 U.S.C. § 273.