

Mitsubishi in turn in May 2010 filed a complaint with the Western District of Arkansas accusing GE of “violation of the antitrust laws” in the market of variable speed wind turbines. Mitsubishi argued that the ’039 patent and other patents were obtained through fraud because the patentee had failed to disclose material prior art to the USPTO. Meanwhile, Mitsubishi filed a further patent infringement suit against GE with the Middle District of Florida.²⁹⁵

2. Patent Law and Practices

The GE cases exemplify what some consider to be “the beginning of an arms race” for IP in the clean energy industry.²⁹⁶ The wind and other clean energy sectors have been compared to the semiconductor industry in that their products assemble numerous components from different manufacturers.²⁹⁷ The GE litigation, which demonstrated “the substantial power of a quality patent,”²⁹⁸ is considered to have given rise to a significant increase in wind energy patent filing. It is worth noting that certain types of practices developed for example with regard to semiconductor patents are often viewed as eroding the patent system: patent thickets, holdup, non-practicing entities, and damages considered excessive.

It is not yet clear whether and how such recent developments in patents will affect this emerging industry. As a general example, will an injunction still be a viable option after *eBay v. MercExchange*? More specific to the industry, will non-practicing entities build green patent portfolios? Little has emerged about intentions of non-practicing entities in this area of technology, although it is known, for example, that Intellectual Ventures operates a subsidiary concerned with the development of nuclear energy.²⁹⁹ Policies of national patent offices favoring the patenting of green technology might also render this sector susceptible to the aforementioned more controversial patent practices.

In another development, business method patents are becoming more important in this sector, for instance, in relation to emissions trading. As noted, the Chicago Climate Change has the largest number of patents in carbon trading in the United States.³⁰⁰ By way of illustration, one of these covers a computer-implemented method of “facilitating trade of emission allowances and offsets among participants, which includes establishing an emission reduction schedule for certain par-

295 Mitsubishi Heavy Industries, Ltd. v. General Electric Co. No. 6:10 CV 00812-JA-KRS (M.D. Florida. filed May 20, 2010).

296 *Id.*

297 *Id.*

298 *E.g.*, James R. Klaiber and Michael T. Nguyen, Panel Discussion at the 2010 AIPLA Annual Meeting (Oct. 21-23, 2010), Predicting the Future of Patent Enforcement in the Renewable Energy Field (unpublished manuscript), available at <http://www.aipla.org>.

299 TerraPower, <http://www.terrapower.com>.

300 *E.g.*, Eggertson, *supra* note 144; also generally Daignault, *supra* note 135.

ticipants based on emission information provided by those participants and determining debits or credits for each certain participant in order to achieve the reduction schedule.”³⁰¹

While much of the impetus for these developments comes from actors in the United States, they also involve a growing number of non-American participants in the clean energy sector, such as the emerging Chinese producers; China’s green technology trade surplus keeps expanding.³⁰² Especially at a time when important early patents are to expire, such as GE’s ’039 patent, international trade disputes look set to encompass the green technology sector as well.

B. Standardization and Patent Pooling

1. Green Technology Standards and Patent Pools

Whereas traditionally, environmental standards primarily aimed to assure safety or prevent direct pollution, new standards in the area of climate change mitigation are now emerging.³⁰³ This trend will likely also impact the emergence of patent pools.

Standardization generally enables industry to achieve interoperability between products provided by different companies and thus to multiply consumer choice while reducing overall costs. Patent pools can also be beneficial in reducing co-ordination problems amongst licensors, licensees and other participants. They are frequently used in the telecommunication and consumer electronics industries where interoperability is key to performance. A more recent development is humanitarian patent pooling. For example, UNITAID, an international entity tasked with facilitating access to treatment for HIV/AIDS, Malaria and Tuberculosis, is in the process of establishing a patent pool for essential medicines.³⁰⁴ The “Eco-Patent Commons” is a more loosely defined pool launched by the World Business Council for Sustainable Development (WBCSD).³⁰⁵ Through a pledge of non-assertion, participants offer their patents free of charge, without prejudice to the possibility of defensive termination.

301 U.S. Patent No. 7,343,341 (issued Mar. 11, 2008).

302 E.g., Bettina Weiss, *Global PV Competition Creates Increased International Disputes*, at http://www.pvgroup.org/NewsArchive/ctr_041594 (last visited Jan 13, 2011).

303 E.g., International Energy Agency (IEA) and International Organization for Standardization (ISO), *International Standards to Develop and Promote Energy Efficiency and Renewable Energy Sources: A Common Position Paper* 2 (June 2007).

304 See UNITAID Executive Board Special Session on Patent Pool, Patent Pool Implementation Plan, UNITAID Doc. EB11/SSPP/2010/R1 (Feb. 5, 2010), available at <http://www.unitaid.eu/en>.

305 See generally, WBCSD, Eco-Patent Commons, at <http://www.wbcsd.org/web/epc>.