Blocking Eco-Patent Trolls: Using Federalism to Foster Innovation In Environmental Technology

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Forrester Environmental Services, Inc. v. Wheelabrator Technologies, Inc.

I. INTRODUCTION

“Patent trolls,”¹ also known as non-practicing entities (“NPEs”), is a term used to denote any entity that asserts patent rights based on a patent it owns but does not practice.² Over the past decade, the rise of patent trolls has significantly impacted the patent ecosystem. NPE-related litigation has become a significant percentage of all patent lawsuits filed.³ The number and costs of NPE patent assertions are also increasing,⁴ and their targets are


² Joel B. Cartera, Responding to a Patent Troll’s Threats, 48 ARK. LAW. 30 (Summer 2013).

³ See James E. Bessen and Michael J. Meurer, The Direct Costs from NPE Disputes, 99 CORNELL L. REV. ___ (Forthcoming 2014), http://ssrn.com/abstract=2091210. In 2011, 2,150 unique companies were forced to mount 5,842 defenses in lawsuits initiated by the actions of NPEs, as compared to 2005, in which the number of defenses was 1,401. Id.

⁴ Id. (estimating that the direct costs of NPE patent assertions totaled about $29 billion in 2011, up from $7 billion in 2005).
expanding in scope. In response, both the United States Supreme Court and the Federal Circuit have taken steps to control NPE-related litigation in a series of decisions. The Forrester decision represents the Federal Circuit’s latest attempt to reduce NPEs’ negative effects on the judiciary, and to open the door for state regulation of patent trolls.

II. FACTS & HOLDING

In Forrester Environmental Services, Inc. v. Wheelabrator Technologies, Inc., the U.S. Court of Appeals for the Federal Circuit addressed whether a past statement made outside the U.S.A. regarding a U.S. patent and limiting the conduct at issue to Taiwan, creates patent law issues which are “substantial in the relevant sense” to the case, thus creating subject matter jurisdiction for federal court jurisdiction.

Forrester Environmental Services, Inc. and Keith E. Forrester (collectively “Forrester”) and Wheelabrator Technologies, Inc. (“Wheelabrator”) are competitors in the market for phosphate-based treatment systems for stabilizing heavy metals in municipal and industrial waste. These treatments prevent heavy metals from potentially leaching into sources of drinking water. Wheelabrator calls its treatment system “WES-
PHix®” and Forrester calls its system “FESI-BOND.” Each owns U.S. patents on their respective waste treatment systems.\(^{10}\)

Wheelabrator and Kobin had a mutual Taiwanese customer, Kobin Environmental Enterprise Co., Ltd. (“Kobin”).\(^{12}\) In 2001, Wheelabrator entered into a license agreement with a Taiwanese company called Bio Max Environmental Engineering (“Bio Max”).\(^{13}\) Bio Max then sublicensed WES-PHix® to Kobin.\(^{14}\) In 2004, Forrester learned that Kobin was dissatisfied with the odor generated by the WES-PHix® system.\(^{15}\) In response, Forrester developed a variation on its FESI-BOND system to address the odor problem and persuaded Kobin to license FESI-BOND for use at Kobin’s Taipei plant.\(^{16}\) In 2006, Wheelabrator sent Kobin a letter asserting that Kobin was in breach of its WES-PHix® sublicense agreement for failure to pay royalties.\(^{17}\) After the letter, Kobin stopped purchasing from Forrester and entered into a new WES-PHix® sublicense with Wheelabrator, which license defined WES-PHix® as “the patented ... and proprietary process of immobilization of metals, such as lead and cadmium, in solid residues ... using any solid, liquid or chemical form of phosphate and/or lime,”\(^{18}\)

\(^{10}\) *Id.*

\(^{11}\) The Federal Circuit noted that Wheelabrator has obtained several related U.S. patents, including U.S. Patent Nos. 4,737,356 (“the ’356 patent”), 5,430,233 (“the ’233 patent“), and 5,245,114 (“the ’114 patent”). *Id.*

\(^{12}\) *Id.*

\(^{13}\) *Id.*

\(^{14}\) *Id.*

\(^{15}\) *Id.*

\(^{16}\) *Id.*

\(^{17}\) *Id.* The letter stated that “Wheelabrator understands that Kobin is using a phosphate-based process to treat municipal waste combustion ash ... at Kobin’s [a]sh processing facility in Taiwan“ and that “[t]he Sublicense Agreement obligates Kobin to pay Bio Max or Wheelabrator ... for each tonne [sic] of [a]sh stabilized by phosphate at its [a]sh processing facility.“ *Id.* The letter also threatened legal action in Taiwan to enforce the sublicense agreement. *Id.*

\(^{18}\) *Id.* at 1332.
specifically referenced certain patents owned by Wheelabrator, and granted a license to utilize WES-PHix® under said patents in Taiwan.

In 2010, Forrester filed suit against Wheelabrator in New Hampshire state court, asserting four state law causes of action as a result of Wheelabrator’s actions regarding Kobin: violation of the New Hampshire Consumer Protection Act; tortious interference with a contractual relationship; tortious interference with Forrester’s prospective advantage; and trade secret misappropriation. Forrester alleged that Wheelabrator made false representations to Kobin about the scope of Wheelabrator’s patents, which led Kobin to believe Wheelabrator’s patents covered Forrester’s system, and caused Kobin to terminate its relationship with Forrester.

Wheelabrator removed the case to the U.S. District Court for the District of New Hampshire. Under 28 U.S.C. § 1441(a), a defendant may remove to federal district court “any civil action brought in a State court of which the district courts of the United States have original jurisdiction.” Forrester moved to remand the case to state court, arguing that the district court lacked subject matter jurisdiction under 28 U.S.C § 1338, which gives federal district courts original jurisdiction over “any civil action arising under any Act of Congress relating to patents.” Wheelabrator argued that the court had federal jurisdiction under Christianson v. Colt Industries Operating Corporation., 486 U.S. 800 (1988), because Forrester could only recover if it prevailed on a substantial question of U.S. patent law. The district court denied Forrester’s motion, and accepted jurisdiction.

References:
19 U.S. Patents 4,737,356, 5,245,114, and 5,430,233.
20 Id. at 1332. The agreement did not explain how U.S. patents could be licensed for activities in Taiwan. Id.
21 Id.
23 Id.
25 Forrester, 715 F.3d at 1332.
26 28 U.S.C § 1338.
27 Forrester, 715 F.3d at 1332.
28 Id.
case, the district court granted summary judgment for Wheelabrator.\(^{29}\) Forrester appealed.\(^{30}\)

On appeal, the U.S. Court of Appeals for the Federal Circuit, agreed with Forrester, holding removal was improper because the district court lacked original subject matter jurisdiction under 28 U.S.C. § 1338.\(^{31}\) The Federal Circuit reasoned that for a state law cause of action to qualify for jurisdiction under § 1338, it must “involve a patent law issue that is ‘(1) necessarily raised, (2) actually disputed, (3) substantial, and (4) capable of resolution in federal court without disrupting the federal-state balance approved by Congress.’”\(^{32}\) The court held that the case did not raise a “substantial” issue of patent law because there was no prospect of future conflict between the parties and thus no prospect of inconsistent judgments between state and federal courts.\(^{33}\) Specifically, no prospect of future conflict existed because the process was being used in Taiwan and could not violate United States patents, and because the patents were expired.\(^{34}\) Thus, any potential conflict was purely “hypothetical.”\(^{35}\) Therefore, the district court lacked subject matter jurisdiction over Forrester’s claims, and the Federal Circuit vacated the district court’s judgment and remanded to the district court with instructions to remand the case to New Hampshire state court.\(^{36}\) This holding makes it clear that when the conduct was purely in the past and does not raise a “substantial” question of federal patent law, federal patent jurisdiction does not arise in a state-law claim premised on a question of patent law.\(^{37}\)

\(^{29}\) *Id.*

\(^{30}\) *Id.*


\(^{32}\) *Id.*; *Forrester*, 715 F.3d at 1333 (quoting *Gunn v. Minton*, 133 S. Ct. 1059, 1065 (2013)).

\(^{33}\) *Forrester*, 715 F.3d at 1334.

\(^{34}\) *Id.* at 1334-1335.

\(^{35}\) *Id.* at 1335.


\(^{37}\) *Id.* (quoting *Gunn v. Minton*, 133 S. Ct. 1059, 1065 (2013));
III. Legal Background

The Constitution gives Congress the power to grant intellectual property rights through patents, in order “[t]o promote the [p]rogress of [s]cience and useful [a]rts . . . .”38 A patent is an exclusive property right that is generally granted for a period of 20 years.39 The purpose of the patent system is to promote innovation and disclosure of inventions while protecting the research investment of the individual or company.40

Federal Jurisdiction over Claims Involving Patents

Under 28 U.S.C. § 1441(a), a defendant may remove to a federal district court “any civil action brought in a State court of which the district courts of the United States have original jurisdiction.”41 Unlike state courts, a federal court’s jurisdiction is limited to that which Congress grants.42 Federal courts have subject matter jurisdiction where diversity or a federal question exists.43 The general federal question jurisdictional statute, 28 U.S.C. § 1331, grants federal district courts original jurisdiction over all civil actions “arising under” the Constitution, laws, or treaties of the United States.44 Separate provisions grant the district courts exclusive original jurisdiction, and the Federal Circuit exclusive appellate jurisdiction, over

38 U.S. CONST. art. I, § 8, cl. 8.
42 In re United States, 877 F.2d 1568, 1571 (Fed. Cir. 1989).
cases arising under federal patent law. Specifically, 28 U.S.C § 1338(a) gives federal district courts original jurisdiction over civil actions brought under federal patent laws.

STATE JURISDICTION OVER CLAIMS INVOLVING PATENTS

Several courts have addressed the issue of state court jurisdiction in cases involving patent rights. Cases presenting only state law claims can still arise under federal law if the complaint raises “a significant federal issue.” However, the United States Supreme Court has held that state courts may adjudicate “patent questions” so long as the action does not “arise under” the patent laws. In Christianson v. Colt Industries Operating Corporation, the Supreme Court held that a claim may “aris[e] under” the patent laws even where patent law did not create the cause of action, provided that the “well-pleaded complaint establishes . . . that the plaintiff’s right to relief necessarily depends on resolution of a substantial question of federal patent law.” Thus, even a cause of action created by state law may “aris[e] under” federal patent law within the meaning of 28 U.S.C. § 1338 if it involves a patent law issue that is “(1) necessarily raised, (2) actually

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46 28 U.S.C. § 1338(a) (granting federal district courts original jurisdiction over “any civil action arising under any Act of Congress relating to patents”).
48 Grable & Sons Metal Prods., Inc. v. Darue Eng’g & Mfg., 545 U.S. 308, 312 (2005). See also T.B. Harms Co. v. Eliscu, 339 F.2d 823, 827 (2d Cir. 1964) (Friendly, J.) (noting the creation test articulated by Justice Holmes in American Well Works “is more useful for inclusion than for the exclusion for which it was intended”).
disputed, (3) substantial, and (4) capable of resolution in federal court without disrupting the federal-state balance approved by Congress.”

Pursuant to the constitutional intellectual property clause, patent law is entirely federal law. Unlike actions in patent law, legal malpractice is governed by state law. Professional malpractice claims are traditionally state law tort and breach of contract claims, predicated on an alleged error by an attorney.

In 2007, the Federal Circuit asserted exclusive federal jurisdiction over patent-related malpractice claims in two decisions issued on the same day. In these two malpractice decisions, Air Measurement Technologies and Immunocept, the Federal Circuit held that disputed and substantial patent issues in state court patent malpractice claims are subject to exclusive federal court jurisdiction. Before the Supreme Court decided Gunn, the Federal

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52 U.S. CONST. art. I, § 8, cl. 8.
55 See *Air Measurement Techs., Inc. v. Akin Gump Strauss Hauer & Feld, LLP*, 504 F.3d 1262 (Fed. Cir. 2007) (patent litigation malpractice); *Immuoncept, LLC v. Fulbright & Jaworski, LLP*, 504 F.3d 1281 (Fed. Cir. 2007) (patent prosecution malpractice).
Circuit had held that any state law claim that required application of patent law was subject to federal ‘arising under’ jurisdiction.\(^{57}\)

In *Gunn v. Minton*, the Supreme Court rejected the Federal Circuit’s precedent and returned authority to the state courts. \(^{58}\) *Gunn*, a patent litigation malpractice case, presented a divisive jurisdictional issue: whether state tort-law based professional malpractice claims stemming from federal patent infringement litigation should be brought in state or federal courts.\(^{59}\) The Texas Supreme Court held the patent issue involved a substantial element of the malpractice claim and thus was beyond the jurisdiction of state courts.\(^{60}\) The Supreme Court reversed and unanimously held that state law patent legal malpractice claims presumptively belonged in state court.\(^{61}\)

*Gunn* asked the U.S. Supreme Court to review the Federal Circuit’s precedent from the Federal Circuit’s 2007 decisions in *Air Measurement Technologies* (patent litigation malpractice) and *Immunocept* (patent prosecution malpractice).\(^{62}\) The Supreme Court held that a state law claim alleging legal malpractice in the handling of a patent case did not “arise under” federal patent law, and thus, 28 U.S.C. § 1338(a) did not deprive the state courts of subject matter jurisdiction over the claim.\(^{63}\)

**IV. INSTANT DECISION**

In the instant case, the U.S. Court of Appeals for the Federal Circuit ruled on a business tort claim brought by the waste-treatment business


\(^{59}\) Id.


\(^{62}\) *Gunn*’s facts involved patent litigation conduct, rather than patent prosecution conduct. *Id.*

\(^{63}\) *Id.*
Forrester against competitor Wheelabrator. Wheelabrator removed the state law action to federal court, arguing that Forrester’s claims implicated a substantial question of U.S. patent law. The central issue on appeal was whether Forrester’s state law claims necessarily raised a “substantial question” of federal patent law, such that the district court had original jurisdiction under 28 U.S.C. § 1338 over Forrester’s claims. Wheelabrator argued federal subject matter jurisdiction existed because Forrester could only recover if Forrester prevailed on a “substantial question” of U.S. patent law. Specifically, Wheelabrator argued that because Forrester sought relief based upon allegations that Wheelabrator had made a false statement about a U.S. patent, “such allegations necessarily required the trial court to construe the claims of the patent in order to determine whether the alleged statements were false”. Thus, Forrester’s claims raised a substantial question of federal patent law.

Forrester responded that federal subject matter jurisdiction did not exist by reason of the relief he sought. Forrester’s claims were based upon statements allegedly made by Wheelabrator to the Taiwanese customer Kobin that Wheelabrator’s patents covered the process that Kobin licensed from Forrester. However, Forrester argued that he did not claim patent

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65 Id. at 1332.
66 Id. at 1333.
67 28 U.S.C. § 1338(a) (granting federal district courts original jurisdiction over “any civil action arising under any Act of Congress relating to patents”).
68 See Christianson v. Colt Industries Operating Corp., 486 U.S. 800 (1988) (holding where the federal patent law does not create the cause of action, subject-matter jurisdiction may still lie if “plaintiff’s right to relief necessarily depends on resolution of a substantial question of federal patent law.”); Gunn v. Minton, 133 S.Ct. 1059, 1065 (2013) (holding federal jurisdiction over a state law claim will lie where a federal issue is necessarily raised, actually disputed, substantial, and capable of resolution in federal court without disrupting the federal-state balance approved by Congress).
69 Forrester, 715 F.3d at 1332.
70 Brief for Appellee at 30, Forrester, 715 F.3d at 1334.
72 Supp. Brief for Appellant at 2, Forrester, 715 F.3d at 1329.
73 Forrester Envtl. Services, Inc. v. Wheelabrator Technologies, Inc., 715 F.3d 1329,
infringement or raise any other substantial question of patent law. Forrester also argued that Wheelabrator’s allegedly inaccurate statements regarding its patent rights concerned conduct taking place entirely in Taiwan. Because “Kobin’s extra-territorial practice of a method allegedly covered by Forrester’s patents is not protected by U.S. patent law,” Forrester argued there was no need for any fact finder to construe those Forrester patents.

In deciding whether Forrester’s state law claims raised a substantial question of federal patent law, the Federal Circuit applied the Supreme Court’s holding in Gunn. The Federal Circuit stated it had previously held similar state law claims premised on allegedly false statements about patents raised a substantial question of federal patent law, and that “[t]hose cases may well have survived the Supreme Court’s decision in Gunn.” The Federal Circuit distinguished Gunn, and held that the legal malpractice claim did not involve a substantial question of patent law from two Federal Circuit decisions that disparagement claims for false statements about U.S. patent rights did involve substantial questions of patent law. The court explained that if decided under state law, the disparagement claims “could result in inconsistent judgments between state and federal courts,” whereas the legal malpractice claim was “purely ‘backward looking.’” The Federal Circuit expressed concern that permitting state courts to adjudicate disparagement cases (involving alleged false statements about U.S. patent rights) could result in inconsistent judgments between state and federal

1334 (Fed. Cir. 2013).

74 Supp. Brief for Appellant, supra note 9, at 2.
75 Brief for Appellee, supra note 7, at 1-2.
76 Id.
77 Forrester, 715 F.3d at 1334 (citing Gunn v. Minton, 133 S.Ct. 1059, 1065 (2013)).
78 Id.
79 Id. at 1334 (citing Gunn, 133 S.Ct. at 1066-67).
81 Id. (quoting Gunn, 133 S.Ct. at 1066-67).
courts.82 “For example, a federal court could conclude that certain conduct constituted infringement of a patent while a state court addressing the same infringement question could conclude that the accusation of infringement was false and the patentee could be enjoined from making future public claims about the full scope of its patent as construed in federal court.”83

The Federal Circuit concluded that the instant case did not give rise to the possibility of future conflict.84 First, the court relied on the fact that the allegedly inaccurate statements concerned conduct taking place entirely in Taiwan.85 “Those statements did not concern activities that could infringe U.S. patent rights, and it is not entirely clear why the Taiwanese entities in this case cared about the extent of Wheelabrator’s U.S. patent rights.”86 The court concluded, “[T]here is no prospect of a future U.S. infringement suit arising out of Kobin’s use of WES-PHix® or FESI-BOND in Taiwan, and accordingly no prospect of inconsistent judgments between state and federal courts.”87

Second, the Federal Circuit reasoned there was no concrete evidence of U.S. patent rights being implicated in the claim because the patents at issue had all expired at the time of judgment.88 The court noted that for the three patents that had already expired there was no prospect of future conduct in the U.S. that could lead to an infringement suit.89 Because there was no prospect of a future U.S. infringement suit arising out of Kobin’s conduct in Taiwan, there was no prospect of inconsistent judgments between state and federal courts.90 As the alleged acts occurred outside the U.S., and did not

82 Id.
83 Id.
84 Id.
85 Id.
86 Id.
88 Id.
89 Id. (stating “the ‘356, ‘233, and ‘114 patents have all now expired, so there is also no prospect that future conduct in the U.S. could lead to an infringement suit regarding those patents”). See 28 U.S.C.A. §§ 1338(a), 1441(a).
90 Forrester, 715 F.3d at 1335.
concern activities that could infringe U.S. patent rights, the court found that, as in *Gunn*, any potential federal-state conflict in the instant case was “purely ‘hypothetical.’”

The next question was whether the doctrine of federal preemption applied to Forrester’s claims. Wheelabrator argued resolution of the claim construction issues would have a potential preclusive effect in future litigation that involved the patents. In rejecting this argument, the Federal Circuit court noted the Supreme Court’s rejection of a related argument in *Gunn* because any such collateral estoppel effect “would be limited to the parties and patents that had been before the state court,” and “such fact-bound and situation-specific effects are not sufficient to establish federal ‘arising under’ jurisdiction.”

The court also rejected Wheelabrator’s argument that Forrester sought remedies that might be preempted by federal law. The appellate court pointed out that federal preemption is ordinarily a defense that does not appear on the face of the complaint, and therefore did not authorize removal to federal court. Therefore, the Federal Circuit concluded that Wheelabrator’s jurisdictional arguments were without merit and even if the allegations contained in Forrester’s complaint necessarily raised a question of patent law, the patent law issues are not ‘substantial in the relevant sense’ under *Gunn*.

Concluding that the district court lacked subject matter jurisdiction under 28 U.S.C. § 1338, the Federal Circuit vacated the district court’s grant of summary judgment on Forrester’s tort law claims involving questions of

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93 *Id.* (quoting *Gunn*, 133 S.Ct. at 1067–68) (internal citations omitted).
94 *Forrester*, 715 F.3d at 1335.
96 *Id.* at 1336 (quoting *Gunn*, 133 S.Ct. at 1066).
-blocking eco-patent trolls: using federalism to foster innovation in environmental technology

patent law, and remanded to the district court with instructions to remand the case to New Hampshire state court.\textsuperscript{97}

V. Comment

The Problem with Patent Trolls

Patent trolls or NPEs are non-manufacturing patent owners (either individuals or companies) that purchase patents and assert them with no intention of creating or manufacturing a product using the patented technology.\textsuperscript{98} Because NPEs do not practice the patented invention nor produce any products, they are never infringers.\textsuperscript{99} Generally, NPEs profit by alleging infringement and offering to license their patents to the alleged infringer in exchange for a royalty much lower than the alleged infringer would pay defending a claim of patent infringement.\textsuperscript{100} NPEs may threaten


\textsuperscript{100} David G. Barker, Troll or No Troll? Policing Patent Usage with an Open Post-Grant Review, 2005 Duke L. & Tech. Rev. 9, 7 (2005). See Danielle Williams & Steven Gardner, Basic Framework for Effective Responses to Patent Trolls, IP Links, Apr. 2006, at 1, available at http://intellectualproperty.ncbar.org/Newsletter/Newsletters/Downloads_GetFile.aspx?id=5956 (noting “business model[s]“ according to which a patent holder “seeks licensing fees of $30,000-$100,000 from each of hundreds of targets“ or “fees of $200,000-$750,000 from a smaller number of companies“).

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costly and time-consuming litigation against both small and large companies. Because companies want to avoid litigation and the possibility of a subsequent permanent injunction, such tactics allow NPEs to generate large amounts of revenue through licensing.

Unfortunately, litigation is one of the most effective mechanisms for eliminating NPEs. “[A] patent owner who unsuccessfully sues an alleged infringer may incur substantial losses if a court also holds that the patent is invalid.” Given this risk, litigation allows a threatened infringer to “turn the tables on the patentee and threaten the NPE’s own assets—possibly driving the value of the litigation to the infringer below zero”. However, 

101 “Even if a patent-infringement suit would be relatively strong, a litigation-wary patent owner may deliberately pursue a business strategy according to which it seeks to license its patent to multiple firms for significantly less than $1 million each—in other words, for less than it would likely cost to litigate any disputes over infringement or validity.” John M. Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111, 2161 (2007) (noting litigation costs (including attorneys’ fees) could also be the primary drivers for settlements). See Danielle Williams & Steven Gardner, Basic Framework for Effective Responses to Patent Trolls, IP LINKS, Apr. 2006, at 1, 3, available at http://intellectualproperty.ncbar.org/Newsletter/Newsletters/Downloads_GetFile.aspx?id=5956 (noting “business model[s]” according to which a patent holder “seeks licensing fees of $30,000-$100,000 from each of hundreds of targets“ or “fees of $200,000-$750,000 from a smaller number of companies“).
102 See Bessen & Meurer, supra at n. 1 (showing small and medium-sized entities made up 90% of the companies sued, accounted for 59% of the defenses, and paid about 37% of the aggregate costs in 2011). See also Alex S. Li, Accidentally on Target: The Mstg Effects on Non-Practicing Entities’ Litigation and Settlement Strategies, 28 BERKELEY TECH. L.J. 483, 523 (2013).
103 Id.
104 Williams & Gardner, supra note 99, at 1 (“Often, an effective response to a patent troll is one that increases its uncertainty, doubt, and fear such that the patent troll concludes that the best business decision is to end the accusation or to resolve the accusation with terms favorable to the accused company.“).
106 Compare Jason Rantanen, Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 183, 190 (“Through litigation, a threatened infringer can turn the tables on the patentee and threaten
smaller companies or inventors rarely have the resources required for litigation against NPEs. Even after an injunction is issued, a party’s relative size and resources may provide an advantage in negotiations. However, if the alleged infringer “pays royalties or quits selling the product, the patent holder gets the benefit of a successful lawsuit without the risk of losing the lawsuit.”

**PATENT TROLLING & ENVIRONMENTALLY-BENEFICIAL TECHNOLOGY**

Intellectual property rights are a necessary incentive for investment in development of sustainable technologies. Patent trolling is particularly problematic when it affects patents that are environmentally beneficial. For the patent troll’s own assets--possibly driving the value of the litigation to the infringer below zero.“). But cf. Rantanen at n.134 (discussing situations in which “a patentee’s discovery costs may equal--or exceed--those of the infringer,” but acknowledging that such situations would be unlikely to occur if a patentee had already successfully defended the validity of its patent in litigation).

107 See John M. Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111, 2161 (2007); Leslie T. Grab, Equitable Concerns of eBay v. MercExchange: Did the Supreme Court Successfully Balance Patent Protection Against Patent Trolls?, 8 N.C. J.L. & TECH. 81, 113 (2006) (“For many small, independent inventors, litigation is not an option.”); Mann, supra note 1, at 981 (“[E]ven if an early-stage company had a patent, it is unlikely that it would have resources available to enforce the patent through litigation against a competitor.”).

108 Jean O. Lanjouw & Josh Lerner, Tilting the Table? The Use of Preliminary Injunctions, 44 J.L. & ECON. 573, 600 (2001) (concluding, based on a study of twelve cases in which courts issued preliminary injunctions, that larger firms “hold out longer in settlement negotiations after they have been enjoined”).


110 See Janet S. Hendrickson, Is the Big Blue Marble Getting Greener?, 4.1 LANDSLIDE No. 1, Sept.-Oct. 2011, at 20, slide_septoct_2011.authcheckdam.pdf (noting that in patenting rates for various clean energy technologies (CETs) or green technologies, the rate of increase per year is about 20%).

example, the patents at issue in *Forrester* were phosphate-based treatment systems for stabilizing heavy metals in municipal and industrial waste. These systems prevent heavy metals from potentially leaching into sources of drinking water. Pollution prevention technologies reduce or eliminate the environmental degradation that accompanies industrial activities. Patents can protect inventors of advances in pollution control systems, as well as other environmental technology.

The purpose of patent law is to promote progress, “a promising premise for the goal of incentivizing environmental innovation.” Some commentators assert that intellectual property has had a neutral impact on the environment. Others have argued that the patent system fails to provide sufficient incentive for innovation in environmentally beneficial technologies. In the context of environmental innovation, the benefits

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113 *Id.*
118 See Mandel, supra n. 116 at 56.
BLOCKING ECO-PATENT TROLLS: USING FEDERALISM TO FOSTER INNOVATION IN ENVIRONMENTAL TECHNOLOGY

conferring patents may not outweigh the high cost of obtaining and protecting them, nor the exclusivity problems presented by patent trolls.

Environmental technology includes: (1) industrial processes that minimize resource consumption and waste production, (2) consumer products that are environmentally benign throughout their life cycles, (3) recycling equipment and processes, (4) waste management technologies for solid and hazardous waste, (5) pollution control devices, and (6) products and methods for cleaning up pollution. Environmental technology can reduce costs of materials, costs of production, as well as increase rates of production, and the attractiveness of products in the marketplace.

Many commentators contend there is potential for socially beneficial environmental innovation that should be, but is not, occurring. The U.S. Patent and Trademark Office (“PTO”) does not discriminate against inventions that could be seen as detrimental to society or of little worth. The PTO’s failure to discriminate between environmentally harmful and beneficial technologies may have a substantively negative impact on innovation. “The patent system is a measure of innovation.”


See Gollin, Patent Law, supra n. 115.

See Gollin, Using Intellectual Property, supra n. 117.

See Mandel, supra n. 116 at 69.

See Juicy Whip, Inc. v. Orange Bang, Inc., 185 F.3d 1364, 1366-68 (Fed. Cir. 1999) (“To be sure, since Justice Story’s opinion in Lowell v. Lewis, 15 F. Cas. 1018 (C.C.D. Mass. 1817), it has been stated that inventions that are ‘injurious to the well-being, good policy, or sound morals of society’ are unpatentable... [But this principle] has not been applied broadly in recent years.... As the Supreme Court put the point more generally, ‘Congress never intended that the patent laws should displace the police powers of the States, meaning by that term those powers by which the health, good order, peace and general warfare of the community are promoted.”).

See Gollin, Using Intellectual Property, supra n. 117 at 235 (encouraging an environmental perspective on patents to distinguish between harmful and beneficial technologies, discouraging the former while encouraging the latter.) See Gray, The Paradox
number of patent actions has increased, so have the number of patents filed for renewable energy. Environmentally beneficial technology is a public good. However, environmental innovation suffers two public good problems - an invention public good problem and an environmental public good problem. The PTO’s failure to discriminate between environmentally beneficial and harmful technologies may represent a failure to meaningfully prioritize socially valuable patents. Environmental innovation requires large-scale capital investment, particularly in regard to green innovation.

of Technological Development, TECHNOLOGY AND ENVIRONMENT 192 (Ausubel & Sladovich eds. 1989) (The paradox of technology is that while technological development can create opportunities for improving the environment, it can also disrupt and harm the environment. By distinguishing between harmful and beneficial technology, the paradox can be resolved.).

126 See Gollin, Using Intellectual Property, supra n. 117 at 232 fn. 182.
128 Liu’s M. A. Bettencourt, Jessika E. Trancik, & Jasleen Kaur, Determinants of the Pace of Global Innovation in Energy Technologies (Oct. 14, 2013), available at http://trancik.scripts.mit.edu/home/wp-content/uploads/2012/09/plos_patents_final_submission_w_HEADER (showing a sharp increase in rates of patenting over the last decade, particularly in renewable technologies, despite continued low levels of R&D funding, and revealing a regular relationship between growing markets and public R&D in driving innovative activity.).
130 See Fred Bosselman et al., ENERGY, ECONOMICS AND THE ENVIRONMENT 41-44 (2000) (describing the role of externalities in environmental protection and discussing the public good aspect of environmental protection); Margaret R. Taylor et al., Regulation as the Mother of Innovation: The Case of SO2 Control, 27 LAW AND POLICY 348 (2005) (noting that industry tends to under-invest in “environmental technologies because of their public good characteristic“).
Patents provide little incentive to innovate if it is difficult to recover costs or the innovation is likely to lead to costly litigation.¹³³

**FORRESTER ENCOURAGES A RESPONSE BY STATES**

Patent law has traditionally been the federal government’s domain.¹³⁴ However, patent trolling is a national problem, and Forrester demonstrates that NPE-related litigation is becoming an increasing nuisance for state officials. The practical effect of Forrester is to encourage state attorneys general to protect businesses from abusive lawsuits filed by NPEs.

In May 2013, Vermont Attorney General William Sorrell filed a state action against MPHJ Technology Investments in the State of Vermont Superior Court, claiming that MPHJ had violated Vermont consumer protection laws.¹³⁵ The Vermont AG brought the claims under Section 2453(a) of the Vermont Consumer Protection Act (“VCPA”),¹³⁶ which prohibits unfair and deceptive acts and practices in commerce.¹³⁷ Passed to help Vermont businesses protect themselves from bad faith patent infringement claims,¹³⁸ the VCPA was the first “patent troll” legislation in Vermont, and thus far, is the only one of its kind in the nation.¹³⁹

This suit marked the first time that a state attorney general has filed suit against a “patent troll”. The suit was filed after hundreds of Vermont businesses¹⁴⁰ received demand letters from various patent-holding

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¹³³ See Derzko, supra n. 40 at 8.
¹³⁴ U.S. CONST. art. I, § 8, cl. 8.
¹³⁶ Vermont Consumer Protection Act, 9 V.S.A. §§4195–4199 (effective July 1, 2013) (hereafter the “VCPA”).
¹³⁷ Id. at § 2453(a).
¹³⁸ Id.
¹³⁹ Id.
¹⁴⁰ The businesses included two small non-profits who were named in the complaint: Lincoln Street, a Springfield nonprofit that gives home care to developmentally disabled Vermonters, and ARIS Solutions, a non-profit that helps the disabled and their caregivers with various fiscal and payroll services. Complaint at 3, Vermont v. MPHJ Technology Investments, LLC, No. 282-5-13 WNCV (Va. Super. Ct. May 8, 2013).
companies. MPHJ Technology claims to have a patent on the process of scanning documents and attaching them to email via a network. The demand letters generally stated that using office equipment-like scanners that send email files-violates patents owned by MPHJ Technologies. Usually the letters demanded a payment of $9,000, or be faced with legal action. After Vermont filed suit, MPHJ Technologies attempted to remove the action under 28 U.S.C. § 1441 to the U.S. District Court for the District of Vermont, as opposed to the State of Vermont Superior Court.

Other states have taken an interest as well. Recently, Minnesota settled patent litigation against MPHJ. The Nebraska Attorney General is also investigating MPHJ for sending numerous demand letters claiming federal patent violations had been perpetrated by any Nebraska consumer, small business or nonprofit that had ever used a scanner to send files to email. Nebraska is the


Joe Mullin, Patent troll that wants $1,000 per worker gets sued by Vermont A-G, Ars Technica (May 22, 2013 1:40 PM CDT), http://arstechnica.com/tech-policy/2013/05/patent-troll-that-wants-1000-per-worker-gets-sued-by-vermont-a-g/.


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Notice of Removal at 8, Vermont v. MPHJ Technology Investments, LLC, U.S. District Court for the District of Vermont, Docket No. 2:13-CV-00170-wks (June 7, 2013 3:36 PM) (seeking to transfer the case to the U.S. District Court for the District of Vermont, as opposed to the State of Vermont Superior Court).


second state whose officials are attempting to shield local businesses from frivolous lawsuits by patent holders through state laws. In July 2013, the Nebraska Attorney General\(^\text{148}\) initiated an investigation into whether patent infringement enforcement efforts by a Texas law firm, Farney Daniels LLP, violated Nebraska’s consumer protection\(^\text{149}\) and unfair and deceptive trade practices\(^\text{150}\) laws.\(^\text{151}\) The firm had sent multiple demand letters to Nebraska businesses on behalf of patent trolls threatening lawsuits over patent infringement.\(^\text{152}\)

The Federal Circuit expressed concern over uniformity in *Forrester*, fearing that permitting state courts to adjudicate claims that involved alleged false statements about U.S. patent rights could result in inconsistent judgments between state and federal courts.\(^\text{153}\) However, the holding in *Forrester* makes it more difficult to remove a patent-related action grounded in state law. This difficulty follows a trend set by the recently enacted Leahy-Smith America Invents Act (“AIA”), which overhauled the U.S. patent laws.\(^\text{154}\) The AIA responded to concerns about patent trolls by enacting

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\(^\text{152}\) Id.

\(^\text{153}\) Id.

\(^\text{154}\) David Kappos, Under Secretary of Commerce for IP and Director of the USPTO.
a more restrictive joinder rule. This rule was intended to make it more difficult for NPEs to file suit and to help reduce the strain on judicial resources.\textsuperscript{155} The holding in \textit{Forrester} may encourage state action against NPEs like MPHJ, freeing up the federal courts for claims that are substantially related to patents. Moreover, because the audience most commonly affected by NPEs is both small and large business owners,\textsuperscript{156} the \textit{Forrester} decision provides some support for states to use their own state law to protect their citizens from abusive lawsuits. This may stem the tide of NPE-filed litigation, which is steadily building into a crisis.

One increasing problem is NPEs who assert weak or expired patents.\textsuperscript{157} For example, the litigation in \textit{Forrester} arose from expired patents.\textsuperscript{158} \textit{Forrester} also paves the way for states to resolve ancillary questions of patent law while protecting small and large business owners. The \textit{Forrester} holding creates a precedent for states to bring actions against NPEs who invoke rights to expired patents.

\section*{VI. Conclusion}

By making it more difficult to remove a patent-related action grounded in state law, the \textit{Forrester} decision may lessen the sting of non-practicing entity (“NPE”)–related litigation. \textit{Forrester} also encourages state attorneys general to attack patent trolls on their own ground, using state law to protect businesses. Lastly, \textit{Forrester} represents a positive first step for states to resolve suits that involve patent claims on environmentally beneficial technology.


\textsuperscript{156} See Bessen & Meurer, \textit{supra} at n. 5.


\textsuperscript{158} \textit{Forrester}, 715 F.3d at 1335 (Fed. Cir. 2013) (“Moreover, the ’356, ’ 233, and ’114 patents have all now expired…”).
BLOCKING ECO-PATENT TROLLS: USING FEDERALISM TO FOSTER INNOVATION IN ENVIRONMENTAL TECHNOLOGY

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