

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

SIEMENS GAMESA)
RENEWABLE ENERGY A/S,)
Plaintiff,)
v.) CIVIL ACTION
GENERAL ELECTRIC CO.,) NO. 21-10216-WGY
Defendant.)

YOUNG, D.J.

September 7, 2022

MEMORANDUM AND ORDER FOR JUDGMENT

This matter is before the Court after a fourteen-day jury trial on invalidity and infringement of two of SGRE's wind turbine patents: United States Patent No. 9,279,413 (the "'413 Patent") and United States Patent No. 8,575,776 (the "'776 Patent"). See First Am. Compl. Patent Infringement & Jury Demand ¶¶ 1, 23, 32, ECF No. 95; Def.'s Second Am. Answer, Affirmative Defs. & Countercls. Pl.'s First Am. Compl. 19-31, ECF No. 98; see also Electronic Clerk's Notes, ECF Nos. 335, 338, 340, 342, 344, 347, 349, 351, 359, 360, 362, 369, 372, 374. At the conclusion of the trial, on June 17, 2022, the jury issued its verdict, finding claims 1, 2, 3, 6, and 7 of the '776 Patent invalid and not infringed and claims 1, 2, 8, and 11 of the '413 Patent valid and infringed. See Jury Verdict 2, ECF No. 375. The Jury also concluded SGRE was not entitled to lost

profits, but that SGRE had proved its entitlement to a running reasonable royalty rate of \$30,000 per Megawatt. Id. 3.

Subsequently, SGRE filed a motion for a permanent injunction. See Mot. Inj. The parties have fully briefed this motion. See SGRE's Mem. Supp. Mot. Perm. Inj. ("SGRE's Mem."), ECF No. 419; Def. GE's Opp'n Pl. SGRE's Mot. Permanent Inj. ("GE's Opp'n"), ECF No. 430. This Court held a hearing regarding remedies on July 28, 2022. See Electronic Clerk's Notes, ECF No. 448. At the hearing, counsel for GE argued that the circumstances of this case and the balance of the equities do not favor an injunction. Tr. Remedy Hearing 14:2-3, ECF No. 455. Therefore, the issue currently before this Court is whether a permanent injunction is appropriate under the circumstances.

As laid out by the Supreme Court in eBay Inc. v. MercExchange, LLC, a four-factor test governs the appropriateness of permanent injunctive relief:

[a patentee] must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

547 U.S. 388, 391 (2006).

SGRE first argues it faces irreparable injury because GE's sales of the infringing product are to the exclusion of SGRE's

sales "resulting in lost profits, lost market share and loss of good will." SGRE's Mem. 4. It points both to the Vineyard Wind project, that SGRE competed for and lost, and to possible future projects. Id. 6. Furthermore, SGRE argues GE is solidifying its reputation in the United States offshore wind industry, to SGRE's detriment, by using infringing technology. Id. 7. SGRE asserts a causal nexus exists between GE's infringement and harm to SGRE because claim 8 of the '413 Patent "covers GE's entire Haliade-X wind turbine." Id. 8. Second, SGRE asserts monetary damages are insufficient because SGRE and GE are direct competitors and because SGRE would never voluntarily license the '413 Patent. Id. 10. It furthermore argues that "it is impossible to estimate with reasonable certainty the damage to SGRE's future business, goodwill, and reputation that will be caused by GE's continuing infringement[,]" especially given that SGRE is losing out not only on revenue from turbine sales but also on revenue from "service costs, maintenance costs, and replacement parts." Id. 11-12. Third, it argues the balance of the equities weigh in its favor: (1) only a small portion of GE's business is dedicated to offshore wind whereas it is SGRE's primary product; (2) GE has yet to install even a single turbine in the United States; and (3) GE produces non-infringing turbines it could use instead. Id. 12-15. Finally, SGRE argues the public interest would not be disserved by an injunction,

given importance of a "robust patent system"; it also argues such an injunction would not harm environmental or public good since the turbines have yet to be installed. Id. 16-18.

GE opposes SGRE's motion arguing that SGRE fails to establish any of the four factors. First, GE argues SGRE cannot show irreparable harm **or** inadequacy of monetary damages for at least three reasons: (1) SGRE already proposed a royalty rate; (2) SGRE already experiences competition from Vestas, another wind turbine manufacturer; and (3) SGRE is precluded from seeking a permanent injunction given its failure to seek a preliminary injunction. GE's Opp'n 5-7. Furthermore, GE argues that SGRE has not shown that the infringing feature drives consumer demand -- in fact, SGRE admits it does not practice the '413 Patent in its wind turbines. Id. 7. GE argues the balance of the hardships weighs in its favor: while an injunction would cause GE to lose out on much of the work concomitant to the installation of the Haliade-X's (cabling, foundation design, engineering of the on- and off-shore substations), SGRE would likely still lose out to another manufacturer -- Vestas -- even were GE out of the picture. Id. 9. Finally, GE argues that an injunction would disrupt existing wind projects -- costing the community millions in benefits and tax revenue, hundreds of jobs, and enough renewable energy to power thousands of homes thus disserving the public interest.

Id. 10-11. GE argues two of these projects, Vineyard Wind and Ocean Wind I, are already well underway -- in terms of designing and manufacturing. Id. 11. The public interest reaches beyond financial and electricity generation capacity, as disrupting these projects only serves further to compound the harm caused by the current climate crisis. Id. 12.

This Court considers each of the eBay factors and concludes that a permanent injunction is appropriate in the case at bar.

First, SGRE has shown irreparable harm and the inadequacy of monetary damages. Irreparable injury "requires proof that a 'causal nexus relates the alleged harm to the alleged infringement.'" Apple Inc. v. Samsung Elecs. Co., 809 F.3d 633, 639 (Fed. Cir. 2015) ("Apple III") (quoting Apple Inc. v. Samsung Elecs. Co., 695 F.3d 1370, 1374 (Fed. Cir. 2012) ("Apple I")). Such a showing relies on the "infringing feature driv[ing] consumer demand for the accused product." Apple I, 695 F.3d at 1375. Evidence of direct market competition based on the use of the infringing feature and loss of market share go directly to the degree of harm. See Robert Bosch LLC v. Pylon Mfg. Corp., 659 F.3d 1142, 1152 (Fed. Cir. 2011); see also Praxair, Inc. v. ATMI, Inc., 479 F. Supp. 2d 440, 444 (D. Del. 2007) (using specific sales and market data to make this determination and concluding a permanent injunction was not merited). Furthermore, courts also look to the infringement's

effect on a patentee's "brandname, [] reputation, good will, [and] future research and development opportunities."

MercExchange, L.L.C. v. eBay, Inc., 500 F. Supp. 2d 556, 570 (E.D. Va. 2007).

This Court must also consider whether "remedies available at law, such as monetary damages, are inadequate to compensate" the patentee for the harm suffered. eBay, 547 U.S. at 391. One way of demonstrating this requirement is by showing the "downstream" effects of the irreparable harm "could not be calculated to a reasonable certainty." Apple Inc. v. Samsung Elecs. Co., Ltd., 735 F.3d 1352, 1368 (Fed. Cir. 2013) ("Apple II").

With regard to irreparable harm, SGRE adduced evidence that it has lost a significant portion of the market share to GE. Jury Trial Tr. vol. II 154:1-156:13, June 13, 2022, ECF No. 404. Furthermore, SGRE has also shown that GE and SGRE competed head-to-head and were the last two competitors in the bidding process for at least one contract. Id. 132:1-8. Finally, SGRE has produced evidence of projected losses from GE's continued sales, which could amount to up to 600 turbines during the life of the patent. Jury Trial Tr. vol. I 14:2-15, June 14, 2022, ECF No. 405.

SGRE has also shown that the '413 Patent provides a key element for the functionality of wind turbines -- creating a

nexus between its use in the Haliade-X, and the harm in the market it is facing. For example, Kim Thomsen, an inventor of the '413 Patent testified during trial that the '413 patent was meant to anticipate and resolve problems in larger turbines specifically by reducing load on the rotor hub, which allows for a bigger motor and more power. Jury Trial Tr. vol. II 116:2-117:18, 128:9-130:9, June 6, 2022, ECF No. 391. This invention also reduces the chances of the offshore wind turbines failing, dramatically reducing expenses for customers. Id. 125:10-25; Jury Trial Tr. vol. II, 98:8-9, June 7, 2022, ECF No. 394 ("After the gear box, the component that experiences the next highest amount of failures is the bearing."); Jury Trial Tr. vol. I 15:21-24, 17:23-18:14, June 15, 2022, ECF No. 407 (discussing how changes in the Haliade-X require less maintenance -- an important factor for customers --- because it has fewer bearings compared to GE's prior model the Haliade-6).

As to the adequacy of monetary remedies both GE and SGRE agree that the installation of wind turbines could cause loss of "downstream sales," Apple II, 735 F.3d at 1368, such as maintenance, repair, and sales that are variable from customer to customer, such as the building of foundation structures and engineering and design costs, which are difficult to quantify, see SGRE Mem. 11 (explaining the difficulty of estimating future "service, repair, and maintenance" revenue); GE's Mem. 13

(touting how many jobs it will produce in operations and maintenance if not enjoined), id. 9 (discussing concomitant work that goes into turbine construction such as cabling and foundation design).

GE's raises five main objections to SGRE's irreparable harm and to the inadequacy of monetary damages: (1) SGRE sought a royalty; (2) SGRE has other competitors beyond GE; (3) SGRE failed to seek a preliminary injunction; (4) SGRE fails to practice the '413 Patent; and (5) SGRE failed to show that the '413 patent drives consumer demand. GE's Opp'n 5-12. As to its first objection, award of a reasonable royalty does not preclude issuance of an injunction; in fact, courts have used jury verdicts to determine the reasonable royalty to be paid in escrow during a stay placed on a permanent injunction. Cummins-Allison Corp. v. SBM Co., 669 F. Supp. 2d 774, 779 (E.D. Tex. 2009), aff'd, 484 F. App'x 499 (Fed. Cir. 2012). Furthermore, an award of both a reasonable royalty and a permanent injunction are not mutually exclusive. See Texas Advanced Optoelectronic Sols., Inc. v. Renesas Elecs. Am., Inc., 895 F.3d 1304, 1331 (Fed. Cir. 2018) (concluding district court's reasoning that plaintiff's request for a reasonable royalty for past infringement precluded imposition of a permanent injunction was erroneous); Versata Software, Inc. v. SAP Am., Inc., 717 F.3d 1255, 1269 (Fed. Cir. 2013) (affirming a district court's award

of both reasonable royalties and a permanent injunction -- while, at the same time -- vacating part of the injunction). In discussing trade secrets misappropriation, which has been termed "analogous" to patent infringement, see Bianco v. Globus Med., Inc., 53 F. Supp. 3d 929, 932 (E.D. Tex. 2014), several courts have concluded "reasonable royalties and permanent injunctions can co-exist" when the reasonable royalties apply to misappropriations that took place before issuance of the injunction, Steves & Sons, Inc. v. Jeld-Wen, Inc., Civil Action No. 3:16cv545, 2018 U.S. Dist. LEXIS 203593, at *20 (E.D. Va. Nov. 30, 2018). Because the jury was instructed to issue a reasonable royalty for existing Turbine Supply Agreements ("TSA"), see Jury Trial Tr. 53:18-23, June 16, 2022, ECF No. 410 (referring, in the jury charge, to "actual agreements"), it applies to misappropriations before the issuance of the injunctions, which took place when the relevant TSAs were signed.

As to GE's second objection, "[i]t is well-established that the 'fact that other infringers may be in the marketplace does not negate irreparable harm.'" Robert Bosch LLC v. Pylon Mfg. Corp., 659 F.3d 1142, 1151 (Fed. Cir. 2011) (quoting Pfizer, Inc. v. Teva Pharm. USA, Inc., 429 F.3d 1364, 1381 (Fed.Cir.2005)). Therefore, Vestas's existence as a competitor does nothing to make the harm of infringement any less

pronounced. As to its third objection, the Federal Circuit has “never held that failure to seek a preliminary injunction must be considered as a factor weighing against a court’s issuance of a permanent injunction.” See Mytee Prods., Inc. v. Harris Rsch., Inc., 439 F. App’x 882, 888 (Fed. Cir. 2011). With regard to its fourth objection, “[e]ven without practicing the claimed invention, the patentee can suffer irreparable injury.” Presidio Components, Inc. v. Am. Tech. Ceramics Corp., 702 F.3d 1351, 1363 (Fed. Cir. 2012).

Finally, as to the fifth objection, the consumer demand inquiry is complex; it focuses on the importance of a given patented feature “in the context of the accused product, and not just the importance, in general, of features of the same type as the claimed invention,” and can be established by evidentiary showings of the desirability of the feature or of why the feature alongside others might compel a purchaser. Apple II, 735 F.3d at 1364. As discussed at length above, SGRE has shown the importance of the ‘413 Patent to the marketability of wind turbines that use it and created a nexus with GE’s infringement and the success of the Haliade-X. See Jury Trial Tr. vol. I 59:1-60:4, June 8, 2022, ECF No. 395 (arguing GE’s previous models were not as competitive as the Haliade-X because of how small, heavy, and costly to maintain they were).

Second, SGRE has shown that the balance of the hardships weighs in its favor. "The district court must weigh the harm to the moving party if the injunction is not granted against the harm to the non-moving party if the injunction is granted."

Metalcraft of Mayville, Inc. v. The Toro Co., 848 F.3d 1358, 1369 (Fed. Cir. 2017). SGRE's primary product is offshore wind turbines, see SGRE Mem. 13, and it has lost out on contracts in this field because of GE's infringement, see Jury Trial Tr. vol. II 132:1-8, June 13, 2022. By contrast only a small portion of GE's current business is dedicated to offshore wind turbines, see Jury Trial Tr. vol. I 59:21-60:18, June 1, 2022, ECF No. 383 (concluding that GE has installed about 158 offshore turbines, whereas SGRE has deployed over 5,000), and GE has non-infringing models at its disposal, see id. 44:4-6 (describing GE's project in France involving the Haliade-6).

Third, SGRE has demonstrated that the public interest would not be disserved by granting a carefully tailored injunction. It is against the public interest to allow infringement that would "have the effect of inhibiting innovation and incentive." Douglas Dynamics, LLC v. Buyers Prod. Co., 717 F.3d 1336, 1346 (Fed. Cir. 2013). Allowing GE to continue its infringing conduct would surely chill advancement of wind turbine and renewable energy technology and thus would defy the public

interest in closely protecting valued patent rights. See Apple, 75 F.3d at 1372.

Other public interests, however, are of key concern. First, the world is currently facing a rapidly developing climate crisis. "Billions of tons of CO₂ are released into the atmosphere every year as a result of coal, oil, and gas production," which have affected global temperatures -- the last four years were the hottest on record -- food and water security, the likelihood of weather-based disasters, and international peace and security. See The Climate Crisis -- A Race We Can Win, United Nations, <https://www.un.org/en/un75/climate-crisis-race-we-can-win> (last visited Aug. 27, 2022). Delaying largescale wind energy projects can impact efforts to combat this crisis. GE argues that wind turbine contracts it has entered "take years and billions of dollars to implement" and that although the turbines themselves have not been installed, for one project, Vineyard Wind, "onshore construction" of relevant components "has been ongoing for ten months." GE's Opp'n 11. For Vineyard Wind, specifically, GE argues no other turbine supplier could supply a turbine within the needed timeframe. Id. For Ocean Wind negotiations and designs have been ongoing for months to years and, GE argues, an injunction would force these players to restart negotiations further delaying these projects. Id.

Second, GE argues that its ongoing projects are creating thousands of jobs in Massachusetts and other states along the east coast and will generate millions in community benefits such as personal income, sales, and property tax revenue. Id. 13. Third, disruption of these ongoing projects could increase the cost of clean power for individual customers. Id. 14.

These arguments are well taken and will be considered in crafting the carve-out for this Court's injunction. The adequacy of a permanent injunction is "entirely independent from the scope of [a] proposed injunction." Apple III, 809 F.3d at 640.

Indeed, were a carefully tailored permanent injunction not to issue here where, as between direct competitors in a lucrative emerging market, one has been determined to infringe the other's valid patent, then the aggregate value of America's intellectual property and the integrity of its beneficial patent system would be incalculably diminished.

Accordingly, SGRE's motion for a permanent injunction is **ALLOWED** in part in so far as this Court rules a permanent injunction is appropriate in the case at bar; consideration of the injunction's breadth, however, will be limned in the final judgment.

SO ORDERED.

/s/ William G. Young
WILLIAM G. YOUNG
DISTRICT JUDGE