

In the
United States Court of Appeals
for the Federal Circuit

ECOFACOR, INC.,

Plaintiff-Appellee,

v.

GOOGLE LLC,

Defendant-Appellant.

Appeal from the United States District Court
for the Western District of Texas, No. 6:20-cv-00075-ADA.
The Honorable Alan D. Albright, Judge Presiding.

**EN BANC REHEARING BRIEF OF AMICUS CURIAE ALLIANCE OF U.S.
STARTUPS & INVENTORS FOR JOBS (“USIJ”) IN SUPPORT OF
APPELLEE, ECOFACOR**

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**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

CERTIFICATE OF INTEREST

Case Number 23-1101

Short Case Caption Ecofactor, Inc. v. Google LLC

Filing Party/Entity Alliance of U.S. Startups & Inventors for Jobs ("USIJ")

Instructions: Complete each section of the form. In answering items 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance. **Please enter only one item per box; attach additional pages as needed and check the relevant box.** Counsel must immediately file an amended Certificate of Interest if information changes. Fed. Cir. R. 47.4(b).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

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Name: Robert P. Taylor

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Robert P. Taylor RPT LEGAL STRATEGIES PC		

5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

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The Alliance of U.S. Startups and Inventors for Jobs (“USIJ”) submits this brief as *amicus curiae* pursuant to Fed. R. App. P. 29(b) in support of Plaintiff-Appellee, EcoFactor, Inc., in *en banc* rehearing of appeal by Defendant-Appellant, Google LLC from a judgment finding infringement of U.S. Patent No. 3,738,327, owned by EcoFactor, and assessing damages in the amount of \$20,019,000. USIJ believes that the original panel decision affirming these rulings of the district court was properly decided and that the panel dissent misreads both the Supreme Court’s decision in *Daubert v. Merrill Dow Pharmaceuticals*, 509 U.S. 573 (1993) and the record in the district court.

INTEREST OF *AMICUS CURIAE*

Amicus curiae USIJ is a coalition of startup companies, inventors, investors, and entrepreneurs whose businesses depend upon stable and reliable patent protection as an essential foundation for making long-term investments of capital and time commitments to high-risk ventures developing new technologies.¹ USIJ was formed in 2012 to address concerns that legislation, policies and practices adopted by the U.S. Congress, the Federal Judiciary and certain Federal agencies

¹ No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than *amicus curiae* made a monetary contribution to its preparation or submission.

were and are placing individual inventors, entrepreneurs and research-intensive startups (“USIJ Cohort”) at an unsustainable disadvantage relative to their larger incumbent rivals, both domestic and foreign, and others that would make wrongful use of their inventions and patents. A disproportionately large number of strategically critical breakthrough inventions are attributable to such individual inventors and small companies, this case being exemplary.

USIJ’s fundamental mission is to assist and help inform members of Congress, the Federal Judiciary and leaders in the Executive branch regarding the critical role that patents play in our nation’s economic system and the particular importance of startups and small companies to our country’s economic health and its continued leadership role in the development of strategically critical technologies.

SUMMARY OF ARGUMENT

USIJ makes three primary points. First, the gatekeeping function required by *Daubert v. Merrill Dow Pharmaceuticals*, 509 U.S. 573 (1993) and Rule 702,² as

² Federal Rule of Evidence 702 states:

“A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that:

“(a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

(Footnote Cont’d on Following Page)

applied in the context of patent damages, must necessarily take into account the inherently imprecise nature of a “reasonable royalty” calculated after contested litigation.³ There are often multiple ways to calculate a reasonable royalty from case-specific facts, and it is the role of the trier of fact – in this case a jury – to make that assessment.

While *Daubert* does require a district court to make a preliminary determination that an expert opinion as to damages satisfies Rule 702, *Daubert* does not permit a district court (or an appellate court in review) thereafter to reject an opinion it simply may disagree with. That is for the jury. Put differently, once a district court – in its discretion – has determined that the opinion offered by an expert satisfies Rule 702 as to the methodology used for arriving at a royalty rate, and that the opinion is based on admissible evidence in the record, neither the district court nor a reviewing appellate court should make its own contrary determination as to conclusions to be drawn from the facts on which the expert relied, nor should an

“(b) the testimony is based on sufficient facts or data;

“(c) the testimony is the product of reliable principles and methods; and

“(d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case.”

³ Section 284 provides that when infringement is established, the court should award “**not less than a reasonable royalty**,” as damages for the infringement. This statutory language reflects both a congressional recognition that forcing a patent owner to settle for less than full damages is a second-best solution and also that the calculation of a reasonable royalty is inherently imprecise, so the court should err on the side of the property owner, not the trespasser.

appellate court look beyond the question of whether the district court abused its discretion in admitting the testimony of the expert. The only review available at that point is whether the district court abused its discretion.

Given the foregoing context and the panel majority opinion, Google’s request for a new trial does not appear to be well-founded. It is apparent from the record in this case and the opinion of the panel majority that the patent owner offered evidence, sufficient to satisfy the district court in its gatekeeper role, as to what earlier licensees in comparable circumstance had paid for a real-world license to the patented technology. This Court has often acknowledged the utility of comparable licenses as a factor in determining a reasonable royalty.⁴ Any doubt as to whether ample evidence of comparability was adduced at trial to support EcoFactor’s expert’s conclusion as to a royalty rate can be dispelled fully by Appellee’s brief

⁴ Exemplary is *Virnetx, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1330 (Fed. Cir. 2014):

“[We] conclude that the district court ... did not abuse its discretion in permitting Weinstein to rely on the six challenged licenses. To begin with, four of those licenses did indeed relate to the actual patents-in-suit, while the others were drawn to related technology. Moreover, all of the other differences that Apple complains of were presented to the jury, allowing the jury to fully evaluate the relevance of the licenses. ... No more is required in these circumstances.”

Accord: Pavo Solutions v Kingston Technology, 35 F.4th 1367, 1379 (Fed. Cir. 2022) (no abuse of discretion for allowing expert to rely on statements in a license agreement).

filed in this *en banc* proceeding and the portions of the record cited therein (App. Br., pp. 3–12).

To the extent that Google disagreed with the similarity or comparable nature of the prior licenses, Google had the opportunity for cross-examination to bring any flaws to the attention of the jury, and the record shows that Google took full advantage of that opportunity to question both EcoFactor’s expert and the company’s CEO. Importantly, it also appears that the jury must have taken at least some of Google’s arguments into account, since the final award was based on a royalty substantially less than the patent owner requested. (Panel Maj. Op., p. 13; App. Br. p. 12).

The panel dissent misreads the Supreme Court’s decision in *Daubert*. That case does not suggest that a district court or reviewing appellate court supplant the jury’s factual findings with its own. The *Daubert* decision makes clear that the remedy for “shaky” evidence is vigorous cross-examination, not second guessing by an appellate court:

“[R]espondent seems to us to be overly pessimistic about the capabilities of the jury and of the adversary system generally. Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”

Id. at 596.

Thus, even if the standard of review were *de novo*, it would still be an invasion of the jury's role for an appellate court to substitute its own conclusion for that of the jury. That is true, *a fortiori*, where the review standard is abuse of discretion, as in this case.

As a basis for excluding the licenses altogether, Google argues that all three offered into evidence were for multiple patents, whereas the instant litigation was for a single patent. In light of this Court's precedential order dated December 4, 2024, we have not attempted to address this issue.⁵

Google appears to argue that it is improper to derive a royalty rate from a lump sum license (Google Br., p. 23). That may be the case in some situations, but here the CEO of EcoFactor testified without contradiction that he based the lump sums on the royalty rates recited in the licenses, making an assumption based on his knowledge of the market to predict future sales. Although one of the licensees did introduce into its agreement some factual ambiguity about the stated royalty rate, it nevertheless signed the license reflecting a recital as to the rate. And in the case of Johnson Controls, that licensee acknowledged in correspondence that it also had used the rate set forth in the recitals of its agreement. (Maj.Op., pp 12-13).

⁵ We are mindful of the Court's precedential order limiting the scope of the rehearing to issues related to the assigning of a per-unit royalty to the three licenses in this case.

We discuss the foregoing points further in Section I, below.

Second, we urge the Court to view this *en banc* appeal for what it actually is. Google is not requesting *en banc* review of the panel decision because the panel majority opinion is egregiously wrong in its affirmance of the lower court or somehow a miscarriage of justice. It would be difficult to improve on the majority opinion as a guide to differentiating the role of the district judge, as gate keeper, and the role of the jury. Nor can Google complain that the amount of the judgment is excessive or shocks the conscience. Indeed, the \$20M award seems particularly reasonable in light of the size of the defendant, amounting to only 0.007% of Google's 2023 reported revenues and 0.03% of its net income,⁶ both little more than rounding errors on a financial statement of such magnitude. And when the Court takes into account the fact that Google acknowledged, as it had to, that some amount was necessary to compensate for the infringement, those percentages become even smaller.⁷

⁶ Google's 10-K Annual Report for 2023 shows that the company enjoyed revenues of approximately \$307B and net income of \$74B. <https://abc.xyz/assets/43/44/675b83d7455885c4615d848d52a4/goog-10-k-2023.pdf> (p. 34).

⁷ USIJ's review of the appellate record failed to determine the actual amount that Google's expert would have conceded as a reasonable royalty, other than as noted in EcoFactor's brief that the amount was less than what was requested by EcoFactor and more than what was conceded by the defendant (EcoFactor Br., p.1).

So, what is going on here? USIJ believes that Google and the other digital technology giants that chimed in on the request for *en banc* rehearing are pursuing this case as part of their jointly conceived litigation strategy, which they cynically call “efficient infringement” as if the word “efficient” somehow masks the malicious and predatory nature of the practice. The acknowledged purpose of “predatory” infringement, which is employed regularly by a number of the digital technology giants, is to exploit the enormous disparity in size by making litigation for startups and small companies so expensive and risky as to discourage such companies from even attempting to enforce their patents.⁸

These companies believe that by persuading this Court to narrow the admissibility rules that presently create a fair opportunity for both parties to set forth damage theories, they can further weaken the ability of startups and small companies to assert their patents. From the perspective of the USIJ cohort, any further tightening of the rules of admissibility simply add to the uncertainty already

⁸ Much has been written about the systematic efforts of some of the largest technology companies to spend enormous sums on lobbying politicians and hiring lawyers to argue to courts with the stated objective to weaken the U.S. patent system and allow their unlawful use of the technology of smaller companies with impunity. *See, e.g.*, Nick Matich, “Big Tech has Eviscerated America’s Patent System,” Real Clear Policy (April 5, 2023), available at: https://www.realclearpolicy.com/articles/2023/04/05/big_tech_has_eviscerated_americas_patent_system_891935.html; Jonathan M. Barnett, “The Big Steal,” published by Oxford University Press (2024) (p. 153 *et seq.*).

detering many patent owners from trying to enforce their patents and many other entrepreneurs from using the patent system at all. It is enormously unfair for smaller companies to spend millions of dollars on lawyers and experts in getting through the trial stage of their case and then finding out, only after an appellate ruling, that the exercise was for naught or that they must repeat some or all of the process.

We discuss this pernicious and destructive practice of the Big Tech companies more fully in Section II, below.

Third, we urge the Court to bear in mind the critical importance to startups and their entrepreneurs and investors that damage awards be adequate to compensate the patent owner properly for the unauthorized use of its patented technology, as provided for in Section 284 of the patent statute.⁹ While adequate compensation for infringement has always been important to patent owners, it became even more so following the Supreme Court's 2006 decision in *eBay, Inc., et al. v. MercExchange, LLC*, 126 S.Ct. 1837 (2006), wherein the Court abandoned more than two hundred years of precedent that allowed a patent owner, after litigating successfully against

⁹ Section 284 states, in pertinent part:

“Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement **but in no event less than a reasonable royalty** for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

an infringer, to obtain an injunction barring some overarching public interest concern to the contrary. From the earliest days of the patent system and continuing until *eBay*, permanent injunctions were granted routinely by trial and appellate courts, and thousands of startups and entrepreneurs built their business models in reliance on a continuation of such policies. The Supreme Court's ruling in *eBay* represented a cataclysmic shift in the balance of power between patent owners and the companies to which they became adverse, either as infringers or as potential licensees.

New technologies often have lengthy development cycles, during which time investors and entrepreneurs face multiple risks of failure – risk that other and newer technologies may leapfrog them, regulatory risk, and market risk upon completion, among others. To add the further risk that a larger incumbent will copy the technology once it is proven feasible often makes the difference between moving forward or abandoning the idea. Without some assurance that larger incumbents, with established brands and fully staffed engineering, manufacturing and marketing infrastructure already in place, can be prevented from simply copying the new technology, the incentive for a startup even to commence such an undertaking or venture capital investors to fund such an effort is severely impaired. And since effective protection is no longer readily available by way of injunctive relief from the U.S. courts, it has become extremely important – in fact critical – that damage

awards be “not less than a reasonable royalty” and adequate to compensate fully for the loss of exclusivity.

The foregoing is particularly important for startups and small companies, because it is these companies that have been responsible for the most important scientific and technological breakthroughs, much of it funded by their venture capital investors.¹⁰ And USIJ has demonstrated on multiple occasions that the loss of effective patent protection has been accompanied by a corresponding decline in entrepreneurial activity, particularly in the industries that are strategically critical to our national security and well-being. The same decline was recently noted in the “Final Report of the National Security Commission on Artificial Intelligence”¹¹ and in a report entitled “Investigation of Competition in Digital Markets” issued two

¹⁰ For example, more than half of all new medicines are commercialized by startup companies funded by venture capital investors. *E.g.*, <https://freopp.org/whitepapers/no-contest-small-pharma-innovates-better-than-big-pharma>.

Many of today’s corporate giants in Silicon Valley are themselves exemplary of this point – Apple, Google, Intel, Cisco and others began as venture capital funded startups bringing fresh new technologies to the American public. Their current efforts ignore their own origins and seek to avoid responsibility for misappropriating the newer technologies of others. It is shameful.

¹¹ An overview of the Final Report of the NSCAI, released on March 21, 2021, can be found at <https://reports.nscai.gov/final-report>. The full report is available at https://assets.foleon.com/eu-central-1/de-uploads-7e3kk3/48187/nscai_full_report_digital.04d6b124173c.pdf. *See*, pp. 201-207.

years ago by the House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law Report (“H.R. Report”)¹².

Politicians often extol the virtues of entrepreneurs and startups and most appear to believe that the patent system is working well to protect brilliant inventors and to incentive innovation. Such views fail to grasp the reality facing small companies that try to enforce their patents against larger incumbents, particularly the Silicon Valley giants that comprise some of the largest companies in the world, such as Google and its supporting *amici*. Many of those innovative young companies are sadly disillusioned by today’s patent landscape; some are shifting to other pursuits that do not require enforceable patents, some are finding employment with the large incumbents they would otherwise challenge, and many are using the patent protection available in other countries, particularly the newly created Unified Patent Court in the EU.

We discuss the foregoing points further in Section III.

¹² The H.R. Report can be found at https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf. See, p. 46.

ARGUMENT

I. *Daubert* Does Not Require Courts to Agree with the Conclusions Drawn by an Expert Witness.

USIJ does not believe that Google has raised a legal issue sufficient to overturn the panel majority in this case. Filtered of a great deal of extraneous and distractive noise, Google's contention reduces to an argument that the district court either should have redacted the royalty rates from the three license agreements that include the '327 patent or should have excluded them altogether, because the expert did not know how that rate was arrived at and because, despite the recitals to the contrary in all of the licenses and despite the testimony of the CEO of EcoFactor, the lump sum agreements may not have been based on that rate. (Google Br. p.23-25). At best, this argument is nothing more than a contention that the trial judge erred on admissibility, hardly a basis for finding an abuse of discretion and certainly not a basis for empaneling a new jury to hear similar evidence. Google had every opportunity to cross-examine the EcoFactor expert and its CEO and to argue that the jury should disbelieve the evidence. Google has had its day in court. It is not entitled to another.

The panel dissent wrongly states that the district court allowed EcoFactor's expert to "rest" his opinion on EcoFactor's "self-serving, unilateral 'recitals' of its 'beliefs' in the license agreement." (Dis.Op., p.2). That same argument was made by Google to both the trial court and the original panel and is demonstrably

unsupportable. We will not attempt to reiterate what is set forth clearly in Appellee's *en banc* brief, with citations to the record in the trial court, other than to note that both the trial judge and the panel majority were justified in finding a substantial factual foundation for the expert's opinion as to a royalty rate. Of particular significance in this respect is that the same rate to which EcoFactor's expert opined was also used in arriving at a lump sum payment in three separate license agreements that were based on the same patent at issue here and for similar infringing features of home HVAC systems. That fact alone offers a strong basis for admissibility, and Google's claim to the contrary appears to be conjured merely to create something that looks like a challenge, however insubstantial.

The CEO of EcoFactor, who negotiated all three license agreements, testified that the lump sum payment provided for in each license was calculated using the same royalty rate as subsequently relied upon by the expert. (Panel Maj. Op, pp.12-13). That testimony appears to have been unrebutted, but even if contrary testimony had been offered by Google, the resolution would have been a fact issue for the jury, not to be decided as a matter of law by the district court or this Court.

In light of three comparable licenses to the same patent for the same system feature targeted by EcoFactor's patent, it is clearly incorrect to characterize the royalty rate as based only on the CEO's "belief." It is also inaccurate to say that the recitals and statements included in a signed license agreement are "self-serving,"

when, so far as the record shows, all three licenses were entered into by adversarial parties negotiating at arm's length. Prior to signing any license agreement, both the licensee and the licensor normally have different views as to what a written license should say, but when the negotiations end and the agreement is signed, it reflects the agreement of **both** parties as to what is accurate.

Nor is comparability negated by the fact that the three license agreements relied on by EcoFactor's expert called for payment in the form of a lump sum rather than a stream of payments based on future sales. Most any stream of royalty payments, as a percentage of sales or as fixed amounts per unit, can be converted to a single upfront payment if the parties can agree to an appropriate discount rate and an estimate of future sales, factual issues that are normally negotiated in determining a present value. In the real world, both parties may prefer to end up with lump sum amounts to resolve a patent dispute, even where the lump sum is calculated by one or both parties based on per unit royalty estimates. There are many business, tax, or accounting reasons why this is so. For example, a lump sum provides more administrative convenience than running royalties, which not only require licensees to prepare and verify the accuracy of monthly or quarterly royalty reports, but also require licensors' accounting departments, when reporting quarterly revenues, to estimate their licensees' anticipated unit sales (since royalty reports are often not received before revenues must be reported) and then subsequently reconcile the

estimates to the actual unit sales. A lump sum also provides greater business and accounting certainty to both parties, as a per unit running royalty can make it unpredictable what royalties may be due on a monthly or quarterly basis due to the variability of future sales. Where licenses used for settlements of litigation, lump sum payments allow either or both parties to avoid any further dealings with an adversary. In this case, it is apparent that EcoFactor and its licensees negotiated this issue and that those negotiations were subject to cross-examination.

We urge the Court to keep in mind the important role played by the jury in making a reasonable royalty calculation. Rarely is there only one way of arriving at what constitutes a reasonable royalty in the aftermath of an infringement dispute. Experts for both sides are given a complex broth of economic data, some but not all of it specific to the two parties, and such data can be analyzed in different ways to reach different conclusions. Comparable licenses are among the most clearly objective evidence that a “hypothetical negotiation” using the “Georgia Pacific factors” normally addresses.¹³

¹³ *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1119-20 (S.D.N.Y. 1970), *modified and affd*, 446 F.2d 295 (2d Cir.). Worth noting as well is that there are 15 factors that a jury may take into account in arriving at a reasonable royalty, and little or nothing in the appellate record to consider how the jury here may have balanced these factors.

II. Predatory Infringement by the Largest Companies in the World Should Not Be Tolerated.

In the aftermath of the *eBay* ruling, as this Court and the district courts began to apply the ruling, it became next to impossible for startups and small company patent owners to obtain injunctions protecting their statutory right to exclude, and almost all were left with only the possibility of monetary damages as a remedy for trespass on their property rights. This, in turn, also meant that it became difficult or impossible for startups to “negotiate” licenses on terms that reflected the full value of their technology.

Damages are a poor substitute for the statutory exclusivity assured by both the Constitution and Section 154 of the Patent Act, because most startups and small companies are not able to meet the capacity and other requirements for lost profits, thus leaving only money damages in the form of a “reasonable royalty” as the sole remedy – an amount that in most cases is less than or little more than the patent owner might have negotiated with a reasonable litigant without incurring the cost and disruption of litigation. Lost entirely is the anticipated growth that a smaller company might have enjoyed had a larger competitor not destroyed the opportunity. This is the reality of litigating against any of the Big Tech companies that have filed briefs to participate in this litigation.

After nearly two decades, *eBay* has eliminated virtually all the risk for a defendant who pursues a strategy of deliberate, wanton and continuing infringement,

and has given rise to a culture of scorn and disrespect for the patents of smaller companies, a phenomenon particularly prevalent in the behavior of many of the corporate giants that comprise the digital electronics industry.

In his concurring opinion in *eBay*, Chief Justice Roberts cautioned:

“From at least the early 19th century, courts have granted injunctive relief upon a finding of infringement in the vast majority of patent cases. This ‘long tradition of equity practice’ is not surprising, given the difficulty of protecting a right to exclude through monetary remedies that allow an infringer to use an invention against the patentee’s wishes ...When it comes to discerning and applying those standards, in this area as others, ‘a page of history is worth a volume of logic.’”

Id. at 1841 - 42. [citations omitted] (emphasis supplied).

This observation proved to be prescient. Prior to *eBay*, a reasonable expectation on both sides of a licensing negotiation was that if infringement litigation ensued, an injunction was likely to be entered to stop infringement, which in turn gave even a very large incumbent a compelling reason to at least consider settling patent cases and/or taking a license from a startup or smaller company. After *eBay*, however, there was no longer any such incentive, and many large companies began routinely to ignore the patents of smaller companies, harvesting enormous profits from the infringement for at least the duration of the litigation and beyond.

In a 2019 interview with a representative of the Economist, a former executive of Apple, one of the companies that filed an *amicus* brief supporting Google,

provided a candid look into this predatory practice that has become an entrenched mode of doing business for many companies in the world of digital technology:¹⁴

“Boris Teksler, Apple's former patent chief, observes that ‘efficient infringement’, where the benefits outweigh the legal costs of defending against a suit, could almost be viewed as a ‘fiduciary responsibility,’ **at least for cash-rich firms that can afford to litigate without end.**”

<https://www.economist.com/business/2019/12/14/the-trouble-with-patent-troll-hunting> (The Economist, 12/14/2019) (emphasis supplied).

Apple and others refer to this practice as “efficient infringement,” but it is more aptly called “predatory infringement.” At its core, the strategy seeks to impair the ability of small companies to become competitors before they can become large enough to mount a serious competitive challenge. The business strategy starts with a determined refusal to take a license from a startup or small company whose patents it infringes, choosing instead to deploy whatever funding and personnel are needed to prevail in any patent litigation – without regard to its merits, duration or impact on the patent owner. The strategy is designed to take maximum advantage of far greater access to resources, which usually involves hiring a large number of the best lawyers available, initiating multiple challenges to the validity of the patents at the Patent Trial & Appeals Board (“PTAB”) based on 35 U.S.C. §§311, *et. seq.*, and 321,

¹⁴ See, e.g., Osenga, “‘Efficient’ Infringement and Other Lies,” *Seton Hall Law Review*, 52:1085, 1101-1104; Adam Mossoff and Bhamati Viswanathan, “Explaining Efficient Infringement,” <https://cip2.gmu.edu/2017/05/11/explaining-efficient-infringement>.

et seq, excessive discovery requests and resistance to the discovery sought by the patent owner, requests for extensions of time to prolong the period of infringement and the profits that it brings, and as many motions and appeals as will be tolerated by the judicial process – until the patent owner simply goes away or fails.

Given the enormous costs that can be inflicted on a small patent owner facing litigation without end, the net effect of predatory infringement is that few if any startups and small firms are able to muster the resources necessary to enforce their patents against a dominant incumbent, which in turn renders their patents all but irrelevant to their businesses. And by publicizing the intent never to settle litigation by taking a license, these corporate giants make certain that smaller companies (and often their venture capital investors) understand that spending money on litigation may be throwing good money after bad, with the ultimate effect that many instances of infringement do not even become the object of a challenge from a patent owner.

USIJ realizes that this case is not a proper forum to try and address all of the aspects of the patent system that have made patents unreliable for innovators, but certainly this Court – by preserving adequate compensation for infringement – can take notice that monetary damages are now the only remaining remedy for blatant and wanton predatory infringement that the lack of an injunction has fostered.

III. Investments in Critical Strategic Technologies in Our Country Have Been Declining for More Than a Decade.

The loss of entrepreneurial energy and investor enthusiasm for patent intensive industries, which are among the sectors most important to national security and public welfare, has been one of truly unfortunate casualties of allowing our patent system to deteriorate and weaken. Although entrepreneurs continue to grow in number and importance in the U.S. economy, they are taking fewer risks and making far less use of the U.S. patent system. Increasingly, the focus of new companies is on consumer and fashion products, smartphone apps, and the like, moving away from the strategic technologies that are critical to U.S. leadership in science and technology. USIJ believes this growing unwillingness to invest in developing higher risk technologies that require strong and reliable patents to justify long term investments is the harbinger of an impending disaster; China, Korea, Japan and a number of European countries are strengthening their own patent systems for the very purpose of increasing innovation in critical technologies and with the realistic objective of overtaking American leadership in science and technology.

Larger companies also play an important role in our economy, in that they can carry out large scale manufacturing efficiently and have established nationwide or worldwide distribution channels and marketing expertise that are important for getting new products and technologies to worldwide markets. What most large companies cannot do, however, is to bring disruptive new technologies into

existence that are likely to compete with their legacy products. There are many reasons why such is the case, most notably because the compensation structures that most large companies have in place create a business dynamic that precludes creative innovators from disrupting the company's profitability.¹⁵ This is why the loss of entrepreneurs and their investors present a significant long-term national security problem.

The House Judiciary Subcommittee on Antitrust, Commercial and Administrative Law Report released a report two years ago entitled "Investigation of Competition in Digital Markets" ("H.R. Report"),¹⁶ a 451-page assessment of the state of competition in the digital technology industry. Although the Report is primarily concerned with the impact that Google, Facebook, Amazon and Apple are having on privacy and competition in the digital technologies, much of the report is

¹⁵ See Professor Clayton Christensen, "Innovators Dilemma," Harvard Business Review Press (1997) whose studies describe a number of industries where innovation caused the company's failure.

Accord, Chris Miller, "Chip Wars," Simon & Schuster (2022), pp. 191-97, describing Intel's inability to innovate and enter the market for mobile processing until after smaller companies were able successfully to develop low power chips necessary for smartphones. Michael Hiltzik, "Dealers of Lightning," Harper Collins Publishing (1999), describing how Xerox recognized in 1970 that the dawn of digital imaging would destroy its analog copier business and so created Xerox Parc staffed with some of the most brilliant young inventors and scientists in the world, only to discover that institutional forces within the company still would not allow the resulting innovation to come to market.

¹⁶ The H.R. Report can be found at: https://democrats-judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf

equally applicable to some of the other corporate giants. An important finding of the investigation shows a significant decline in the number of startups and entrepreneurs willing to start companies to compete with the large incumbents:

“In recent decades, however, there has been a sharp decline in new business formation as well as early-stage startup funding. The number of new technology firms in the digital economy has declined, while the entrepreneurship rate—the share of startups and young firms in the industry as a whole—has also fallen significantly in this market. Unsurprisingly, there has also been a sharp reduction in early-stage funding for technology startups.”

(H.R. Report at p.46).

Similarly, the National Security Commission on Artificial Intelligence noted the decline in strategic industries. Its Final Report states:

“China is both leveraging and exploiting intellectual property (IP) policies as a critical tool within international strategies for emerging technologies. The United States failed to similarly recognize the importance of IP in securing its own national security, economic interest and technology competitiveness. The US has not developed comprehensive IP policies to incentivize investments in and protect the creation of artificial intelligence (AI) and other emerging technologies. The consequences of this policy void – which includes legal uncertainty created by the US patent system, eligibility and patentability doctrines, the lack of effective response to China’s domestic and geopolitical strategy centered on its IP institutions, and the lack of effective data protection policies – is that the US could lose its prime position and IP global leadership. At the same time, by strengthening its own IP regimes, China is poised to ‘fill the void’ left by weakened IP protections, particularly for patents, as the US has lost its ‘comparative advantage in securing stable and effective property rights in new

technological innovation.’ This stark policy asymmetry has multiple significant domestic and international implications for the US.”

(NSCAI Final Report, p.201)

These concerns are borne out by a number of other studies, including one commissioned by USIJ and released in 2020 by Professor Mark F. Shultz at the University of Akron showing the shift in venture capital spending away from critical technologies such as semiconductors that are dependent upon patents and toward lower risk investments, such as new marketing and financing techniques, consumer products, hospitality, etc. See, Schultz, “The Importance of an Effective and Reliable Patent System to Investment in Critical Technologies,” <https://www.usij.org/research/2020/8/3/usij-releases-report-on-the-importance-of-an-effective-and-reliable-patent-system-to-critical-technologies>.

Needless to say, these developments do not bode well for our nation and certainly weigh against any further weakening of the U.S. patent system.

CONCLUSION

Despite its innocuous appearance as a case involving only a narrow evidentiary issue, this case in reality represents yet another effort by a handful of gigantic digital technology companies to facilitate the theft of technology developed and patented by others. For reasons set forth in Section I, we believe that the decision of the panel majority is entirely consistent with current law. For reasons we bring out in Section II, we believe that Google’s and its *amicis*’ actual purpose

in asking for rehearing *en banc* is to protect their freedom to use predatory infringement to prevent startups and small companies from even getting to profitability. For reasons set forth in Section III, we believe that government policies allowing the killing of startups before they can become large enough to pose a competitive threat is a disaster for our nation.

In his book, “The Big Steal,” (see, fn. __) Professor Barnett attributes the deterioration of the U.S. patent system to a massive lobbying campaign by the digital technology industry and organizations purporting to act on behalf of consumers of medicines and other products. (Chptrs 1, 7 – 10). Using a powerful example from the early 20th century, Barnett points out why the loss of patent protection may be good for Big Tech and a few short-term consumers, but is a very bad outcome for our nation as a whole:

“Over anything other than the immediate short term, the world is better off by having replaced the kerosene lamp with electric lighting, rather than simply reducing the price of kerosene lamps. The current IP policy trajectory toward increasingly weaker IP rights risks may give us a cheaper kerosene lamps but no electric lighting. That may be a good deal for the lamp maker and its existing customers, but it will be a bad deal for just about everyone else.” (p. 9).

We urge the Court to affirm the panel majority and avoid facilitating the shameful and cynical theft of IP by some of the world’s largest and wealthiest companies.

Respectfully submitted,

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Date: January 24, 2025

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

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Case Number: 23-1101

Short Case Caption: Ecofactor, Inc. v. Google LLC

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