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Dear Mr. Lindsay:

This letter responds to your request on behalf of the Institute of Electrical and Electronics Engineers, Incorporated (“IEEE”) for a business review letter from the Department of Justice pursuant to the Department’s Business Review Procedure, 28 C.F.R. § 50.6.¹ You have asked for a statement of the Department’s antitrust enforcement intentions with respect to a proposed update (the “Update”) to the IEEE Standards Association’s (“IEEE-SA’s”) Patent Policy (the “Policy”). The Update revises the Policy’s provisions regarding commitments from parties holding patent claims that are essential to IEEE standards to make licenses available for these claims on reasonable and non-discriminatory (“RAND”) terms. Your request states that the Update is intended to clarify the scope of these commitments regarding (1) the availability of prohibitive orders; (2) the meaning of “Reasonable Rate”; (3) permissible demands for reciprocal licensing; and (4) the production levels to which IEEE licensing commitments apply. Based, *inter alia*, on the information and representations you provided, and after a thorough review, the Department has determined that it does not intend presently to challenge the Update if it goes into effect.

The Department’s task in the business review process is to advise the requesting party of the Department’s present antitrust enforcement intentions regarding the proposed conduct. It is not the Department’s role to assess whether IEEE’s policy choices are right for IEEE as a standards-setting organization (“SSO”). SSOs develop and adjust patent

¹ Letter from Michael A. Lindsay, Esq., Dorsey & Whitney LLP, to The Hon. William J. Baer, Assistant Att’y Gen., U.S. Dep’t of Justice (Sept. 30, 2014) [hereinafter, Request].

policies to best meet their particular needs.² It is unlikely that there is a one-size-fits-all approach for all SSOs, and, indeed, variation among SSOs' patent policies could be beneficial to the overall standards-setting process. Other SSOs, therefore, may decide to implement patent policies that differ from the Update.³

I. IEEE and IEEE-SA

IEEE, a non-profit professional association with over 400,000 members, is engaged in the advancement of technology.⁴ It is governed by a Board of Directors, which includes the current and immediately former IEEE presidents, the president-elect, the president of IEEE-SA, and a number of other organizational leaders.⁵

The IEEE-SA, an operating unit of IEEE, is a leading developer of international standards.⁶ It is governed by a Board of Governors, whose members either are elected by IEEE-SA members or appointed by existing members of that Board. The IEEE-SA president serves as the chair of the Board of Governors.⁷ The IEEE-SA Standards Board (the "Standards Board") oversees the IEEE standards-development process, and its members are appointed by the Board of Governors.⁸

² For example, VITA revised its patent policy in 2006. Letter from Thomas O. Barnett, Assistant Att'y Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker Biddle & Reath LLP (Oct. 30, 2006), available at <http://www.justice.gov/atr/public/busreview/219380.htm> [hereinafter, VITA 2006 BUSINESS REVIEW LETTER]. IEEE revised its policy in 2007. Letter from Thomas O. Barnett, Assistant Att'y Gen., U.S. Dep't of Justice, to Michael A. Lindsay, Esq., Dorsey & Whitney LLP (Apr. 30, 2007), available at <http://www.atrnet.gov/subdocs/222978.htm> [hereinafter, IEEE 2007 BUSINESS REVIEW LETTER].

³ Failure to comply with a licensing commitment made pursuant to any SSO patent policy would raise concerns under U.S. antitrust law only to the extent that it harmed competition. See, e.g., Bill Baer, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, International Antitrust Enforcement: Progress Made; Work To Be Done 8 (Sept. 12, 2014), available at <http://www.justice.gov/atr/public/speeches/308592.pdf> (expressing concern about antitrust regimes that take action "that is not necessary to remedy the actual harm to competition" and thereby "diminish incentives of existing and potential licensors to compete and innovate over the long term, depriving jurisdictions of the benefits of an innovation-based economy").

⁴ Request, *supra* note 1, at 1-2.

⁵ 2015 IEEE Board of Directors, IEEE, http://www.ieee.org/about/corporate/board_board.html?WT.mc_id=lp_ab_ibo.

⁶ Among its 1,500 standards and projects under development are the 802® series of standards for local and metropolitan area wireless and wired networks. *IEEE at a Glance*, IEEE, <http://www.ieee.org/about/today/index.html>. Other IEEE standards are used in power and energy, telecommunications, biomedical and healthcare, information technology, transportation, and information assurance products and services. Request, *supra* note 1, at 2.

⁷ Request, *supra* note 1, at 2.

⁸ *Id.* at 3.

The Standards Board relies on various committees to study issues and make recommendations for Standards Board actions. Among those committees is the Patent Committee (the “PatCom”), which is responsible for overseeing the use of patents in the development of IEEE standards. The Standards Board chair appoints the PatCom chair and members for one-year terms. The PatCom must have no fewer than four and no more than six members, including the chair, all of whom must be voting members of the Standards Board or the Board of Governors.⁹ All those serving in a governance role at IEEE have a fiduciary duty to act in the best interests of IEEE when exercising their governance responsibilities.¹⁰

II. Development of the Proposed Policy Update

The Policy governs the incorporation of patented technology in IEEE standards. Participants in IEEE-SA working groups are invited to disclose patent claims that may be essential to a standard under development.¹¹ Any holder of potentially essential patent claims is asked to submit a Letter of Assurance (an “LOA”), in which the holder chooses one of four options for licensing those claims:

- (1) It will make a license available, without compensation, for its essential patent claims, to an unrestricted number of applicants for uses implementing the standard;
- (2) It will make a license available for its essential patent claims “under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination,” to an unrestricted number of applicants for uses implementing the standard (the “IEEE RAND Commitment”);
- (3) It will not enforce its essential patent claims against any person (or entity) complying with the standard; or
- (4) It is unwilling or unable to license its essential patent claims without compensation or under reasonable rates, or to agree that it will not enforce those patent claims.¹²

⁹ *Id.*

¹⁰ *Id.* at 4; Letter from Michael A. Lindsay, Esq., Dorsey & Whitney LLP, to Frances Marshall, Esq., U.S. Dep’t of Justice 1-2 (Jan. 28, 2015).

¹¹ Request, *supra* note 1, at 9.

¹² *Id.* at 9; Letter of Assurance for Essential Patent Claims (Jan. 2012), available at <https://development.standards.ieee.org/myproject/Public//mytools/mob/loa.pdf>.

IEEE-SA does not require that a patent holder provide an LOA.¹³ However, it considers the absence of an LOA when deciding whether to approve a draft standard that includes patented technology.¹⁴

In 2007, IEEE-SA updated its Policy to give submitters of LOAs the option of disclosing their most restrictive licensing terms—including maximum rates—in an effort to clarify the IEEE RAND Commitment.¹⁵ In your business review letter request, you state that this change was “insufficient to deal with the broad problem of uncertainty over the meaning of ‘reasonable rates’” for IEEE standards-essential patents, in part because only two of approximately 40 LOAs that parties have submitted since 2007 have disclosed most restrictive licensing terms.¹⁶ You state further that, as a result, patent holders and potential licensees “have continued to take widely divergent positions on the meaning of ‘reasonable rates’” for standards-essential patents.¹⁷

To address this issue, in March 2013, the PatCom chair appointed an ad hoc committee (the “Ad Hoc”) to provide recommendations to the PatCom regarding potential revisions to the Policy. The Ad Hoc subsequently recommended certain revisions, and the PatCom chair re-chartered the Ad Hoc to develop a draft Policy update. The Ad Hoc chair appointed a drafting subcommittee to prepare drafts for review by the full Ad Hoc and to respond to comments on drafts.¹⁸ The drafting subcommittee ultimately prepared four public drafts for comment.¹⁹ IEEE-SA created a website where these drafts were posted for public review, and the Ad Hoc received 680 comments on the various drafts.²⁰

¹³ Request, *supra* note 1, Ex. C at 2 (“The IEEE shall request this assurance without coercion.”).

¹⁴ *Id.* at 10 (“Although IEEE-SA cannot compel a patent holder to provide an assurance (or indeed even to respond to the request), the absence of an assurance is a factor that IEEE-SA will take into account when considering whether to approve the draft standard.”); *id.* Ex. C at 3 (“An asserted potential Essential Patent Claim for which [an LOA] cannot be obtained . . . shall be referred to the Patent Committee.”).

¹⁵ *Id.* at 10. The Department issued a business review letter concerning this update. IEEE 2007 BUSINESS REVIEW LETTER, *supra* note 2, at 9.

¹⁶ Request, *supra* note 1, at 10.

¹⁷ *Id.* Two recently litigated cases involving an IEEE standard demonstrate this divergence. See *In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11 C 9308, 2013 WL 5593609, at *43 (N.D. Ill. Oct. 3, 2013) (for 19 asserted patents, assessing damages of \$0.0956 per unit as compared to the proposed royalty of \$16.17 per unit for tablet computers); *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823, 2013 WL 2111217, at *100 (W.D. Wash. Apr. 25, 2013) (determining, *inter alia*, a RAND rate of \$0.03471 per Microsoft xBox unit, as compared to Motorola’s initial demand of \$6-\$8 per xBox unit).

¹⁸ Request, *supra* note 1, at 13-15.

¹⁹ *Id.* at 14. These drafts were dated August 5, 2013, November 19, 2013, March 4, 2014, and May 10, 2014. The final draft was dated June 10, 2014.

²⁰ *Drafts and Comments Received*, IEEE, http://grouper.ieee.org/groups/pp-dialog/drafts_comments/index.html.

In June 2014, by a vote of three to two, the PatCom approved the drafting subcommittee's fifth and final draft of the Update and submitted it to the Standards Board for consideration.²¹ In August 2014, the Standards Board voted 14-5 to approve the Update and to recommend that the Board of Governors also approve it, with any modifications the Board deemed necessary, and subject to a favorable business review letter from the Department of Justice.²² On December 6, 2014, the Board of Governors voted 9-3 to approve the Update, without modification, contingent upon receipt of a favorable business review letter and review by the IEEE Board of Directors.²³ The IEEE Board is expected to vote on the Update at its regularly scheduled meeting in February 2015.

III. Overview of Analysis

Standards offer significant procompetitive benefits.²⁴ For example, standards can facilitate product interoperability, ensuring that products from a variety of suppliers will work together efficiently, thereby reducing costs for consumers and producers, making products more valuable, and promoting innovation both in and around the standard.²⁵ In addition, the standards-setting process can increase competition among technologies for inclusion in standards, benefiting consumers through increased functionality or lower prices (and sometimes both).²⁶

²¹ Request, *supra* note 1, at 14. The PatCom also approved a set of frequently asked questions regarding the updated Policy (the "FAQs") on December 8, 2014. IEEE-SA, Understanding Patent Issues During IEEE Standards Development (2014) [hereinafter, FAQs]. The FAQs offer "information concerning the IEEE Standards Association and its patent policies," but they do "not state the IEEE-SA Patent Policy." The IEEE-SA Standards Board Bylaws and Operations Manual "control in the event of a conflict between them" and the FAQs. *Id.* at 1.

²² Request, *supra* note 1, at 14-15. In addition, on December 6, the Standards Board voted 17-3 to approve a new LOA, which was revised to make it consistent with the Update. Letter of Assurance for Essential Patent Claims, available at http://grouper.ieee.org/groups/pp-dialog/drafts_comments/LOA_100614.pdf.

²³ IEEE-SA Board of Governors Resolutions, IEEE-SA STANDARDS ASSOCIATION (Dec. 2014), <http://standards.ieee.org/about/bog/resolutions.html>. On November 23, 2014, before the IEEE-SA Board of Governors' vote, IEEE's Board of Directors adopted a resolution directing that "prior to any action being implemented by [IEEE-SA] with regard to [the Policy], it shall be referred to the IEEE Board of Directors for Approval."

²⁴ See, e.g., U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 34 (2007) [hereinafter, IP2 REPORT].

²⁵ See, e.g., Christine A. Varney, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Promoting Innovation Through Patent and Antitrust Law and Policy 5-6 (May 26, 2010).

²⁶ See, e.g., Renata Hesse, Deputy Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Six "Small" Proposals for SSOs Before Lunch 7-8 (Oct. 10, 2012).

Transactional and market efficiencies are achieved when market participants are well-informed and can engage in negotiations in the absence of significant informational asymmetries. Clear patent policies at SSOs promote these goals by allowing for informed participation in standards-setting activities and more knowledgeable decision making when considering whether to adopt or implement a standard. SSOs use licensing commitments—such as commitments to license on RAND terms—to promote inclusion of the best technologies in standards and to ensure access to those technologies. The inherent ambiguity in the meaning of the terms “reasonable” and “nondiscriminatory,” however, can limit the benefits of RAND licensing commitments. Greater clarity and transparency may facilitate further the adoption and implementation of standards, thereby increasing the benefits that consumers derive from standards that include patented technologies.

By bringing greater clarity to the IEEE RAND Commitment, the Update has the potential to facilitate and improve the IEEE-SA standards-setting process. First, the Update may provide participants in IEEE-SA standards-setting processes with better *ex ante* knowledge about licensing terms, potentially broadening *ex ante* competition among technologies for inclusion in a standard. Second, this information could facilitate both *ex ante* and *ex post* licensing negotiations, and reduce patent infringement litigation. A patent holder seeking compensation for patented technology it contributed to a standard should be compensated for its invention in a way that reflects the value of that technology; otherwise patent holders may become reluctant to contribute technology to standards or to invest in future research and development that leads to innovation.²⁷ In the standards-setting context, voluntarily negotiated licensing agreements between a licensee and licensor that give each the benefit of the bargain they seek—implementers of the standard receive access to the technology they need to manufacture, market, and sell their products, while patent holders receive compensation that reflects the value of their technology—is the optimal result. Clarification of the IEEE RAND Commitment may help parties reach such outcomes. Finally, the Update’s provisions also may further help to mitigate hold up,²⁸ ensure access to technology necessary to implement IEEE-SA standards, and eliminate certain potentially anticompetitive practices.

²⁷ See, e.g., U.S. DEP’T OF JUSTICE & U.S. PATENT & TRADEMARK OFFICE, POLICY STATEMENT ON REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 8 (2013) [hereinafter, JOINT DOJ-PTO STATEMENT] (“DOJ and USPTO strongly support the protection of intellectual property rights and believe that a patent holder who makes [] a F/RAND commitment should receive appropriate compensation that reflects the value of the technology contributed to the standard. It is important for innovators to continue to have incentives to participate in standards-setting activities and for technological breakthroughs in standardized technologies to be fairly rewarded.”).

²⁸ A patent holder can engage in hold up “after its technology has been chosen by the SSO and others have incurred sunk costs which effectively increase the relative cost of switching to an alternative standard. Before, or *ex ante*, multiple technologies may compete to be incorporated into the standard under consideration. Afterwards, or *ex post*, the chosen technology may lack effective substitutes precisely because the SSO chose it as the standard. Thus, *ex post*, the owner of a patented technology necessary to implement the standard may have the power to extract higher royalties or other licensing terms that reflect the absence of competitive alternatives.” IP2 REPORT, *supra* note 24, at 36-37 (internal citations omitted). The economic bargaining model underlying claims of hold up has been studied extensively and applied to the standards-setting context. See, e.g., Mark Lemley & Carl Shapiro, *Patent Holdup and Royalty*

IV. Process Concerns

Some critics of the Update contend that parties desiring lower royalty rates commandeered IEEE-SA and that the Update was the product of a closed and biased process antithetical to the consensus-based goals of open SSOs. Many of these concerns centered on the composition, formation, and conduct of the Ad Hoc, which was responsible for generating the Update. The Department takes seriously these concerns. If a standards-setting process is biased in favor of one set of interests, there is a danger of anticompetitive effects and antitrust liability.²⁹ As the Supreme Court has observed, SSOs “may not . . . (without exposing [themselves] to possible antitrust liability for direct injuries) . . . bias the process by . . . stacking the private standard-setting body with decision makers sharing their economic interest in restraining competition.”³⁰

Despite these concerns, it appears that the overall process afforded considerable opportunity for comment on and discussion of the Update, and the duly constituted governing bodies of IEEE-SA and IEEE will have approved the Update before it takes effect. There were numerous opportunities for presenting divergent views as part of the multiple-level review process. The PatCom issued four public drafts of the Update for comment and received 680 comments on those drafts. It voted 3-2 to approve the Update. The Standards Board received submissions regarding the Update and allowed

Stacking, 85 TEXAS L. REV. 1991 (2007); Joseph Kattan & Chris Wood, *Standard-Essential Patents and the Problem of Hold-Up*, in WILLIAM E. KOVACIC, AN ANTITRUST TRIBUTE – LIBER AMICORUM 409 (Nicolas Charbit & Elisa Ramundo eds., 2014); see also Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297 (1978); OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING 52-56 (1985) (discussing the economics of hold up generally). Competition authorities in the United States and Europe have taken enforcement actions against owners of RAND-encumbered standards-essential patents engaging in hold up by using the threat of injunctive relief to exploit the market power that they acquired through the standards-setting process. See, e.g., Complaint, In the Matter of Motorola Mobility LLC and Google, Inc., File No. 121-0120 (F.T.C. July 24, 2013), available at <http://www.ftc.gov/sites/default/files/documents/cases/2013/07/130724googlemotorolacmpt.pdf>; Complaint, In the Matter of Robert Bosch GmbH, File No. 121-0081 (F.T.C. Nov. 21, 2012), available at <http://www.ftc.gov/sites/default/files/documents/cases/2012/11/121126boschcmpt.pdf>; European Commission, *Commission finds that Motorola Mobility infringed EU competition rules by misusing standard essential patents* (Apr. 29, 2014), available at http://europa.eu/rapid/press-release_IP-14-489_en.htm; European Commission, *Commission accepts legally binding commitments by Samsung Electronics on standard essential patent injunctions* (Apr. 29, 2014), available at http://europa.eu/rapid/press-release_IP-14-490_en.pdf. In addition, litigated cases demonstrate the potential for hold up when owners of RAND-encumbered standards-essential patents make royalty demands significantly above the adjudicated RAND rate. See, e.g., In re Innovatio IP Ventures, LLC Patent Litig., No. 11 C 9308, 2013 WL 5593609, at *43 (N.D. Ill. Oct. 3, 2013) (for 19 asserted patents, assessing damages of \$0.0956 per unit as compared to the proposed royalty of \$16.17 per unit for tablet computers); Microsoft Corp. v. Motorola, Inc., No. C10-1823, 2013 WL 2111217, at *100 (W.D. Wash. Apr. 25, 2013) (determining, *inter alia*, a RAND rate of \$0.03471 per Microsoft’s xBox unit, as compared to Motorola’s initial demand of \$6-\$8 per xBox unit).

²⁹ Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 511 (1988).

³⁰ *Id.*

both supporters and opponents to provide their views orally. It then voted by a supermajority of 14-5 to approve the Update. The Board of Governors similarly heard from supporters and opponents of the Update before it approved the Update by a supermajority vote of 9-3. Finally, there will be an additional level of review as the IEEE Board of Directors must approve the Update by majority vote for it to go into effect. It is clear that the Board is aware of the wide range of views regarding the Update. Its members have a fiduciary duty to IEEE and can be expected to vote in the best interests of IEEE (the same is true for all those IEEE-SA members who voted on the Update). Given the numerous opportunities for comment, discussion, and voting at different levels within IEEE, the Department cannot conclude that the process raises antitrust concerns.³¹

V. Analysis of the Update's Provisions

The Department has analyzed whether the Update's provisions on (1) the availability of prohibitive orders; (2) the meaning of "Reasonable Rate"; (3) permissible demands for reciprocal licensing; and (4) the production levels to which IEEE licensing commitments apply³² will harm competition by anticompetitively reducing royalties and thereby diminishing incentives to innovate. The Department has concluded that such harm is unlikely to occur as a result of the Update given that, *inter alia*, licensing rates ultimately are determined through bilateral negotiations, the Update's specific provisions are not out of step with the direction of current U.S. law interpreting RAND commitments (or the evolution of U.S. patent damages law for complex products that incorporate many patented technologies, whether or not these patents are RAND-encumbered), and patent holders can avoid the updated IEEE RAND Commitment and still participate in standards-setting activities at IEEE-SA (or can depart to other SSOs). The balance of this letter describes the Department's analysis of these issues.

³¹ Nor, as explained below, is implementation of the Update, in the Department's view, likely to harm competition, a necessary element of an antitrust claim.

³² Request, *supra* note 1, Ex. B at 2-3. In addition to the four provisions highlighted in the Request, the Update strengthens language regarding the binding nature of the commitments embodied in the LOA on assignees and transferees. It specifies that the submitter and its affiliates "shall not, with the intent of circumventing or negating any of the representations and commitments made in the" LOA, "assign or otherwise transfer any rights" in any essential patent claims included in the LOA, and makes clear that the commitments embodied in the LOA are intended to be binding on all assignees and transferees. *Id.* Ex. C at 3. By reducing the possibility of achieving hold up through assignments or transfers to entities that are not signatories to the IEEE RAND Commitment, this provision should decrease uncertainty about the reliability of LOAs over the long term, thereby easing licensing negotiations and strengthening the standardization process. This outcome is particularly important in view of the increasing frequency of acquisitions of RAND-encumbered standards-essential patents.

A. Prohibitive Orders

The Update recognizes that a voluntarily negotiated licensing agreement between a licensor and licensee is a preferred outcome.³³ When parties cannot agree on licensing terms and need to resort to neutral third parties to resolve their licensing dispute—a dispute likely relating to differences over the value, validity, or enforceability of the patented technology or its infringement—the Update gives specific guidance on the availability of a prohibitive order under the IEEE RAND Commitment. It states that companies agreeing to the IEEE RAND Commitment “shall neither seek nor seek to enforce a Prohibitive Order . . . unless the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review . . . by one or more courts that have the authority to determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims.”³⁴

The threat of exclusion from a market is a powerful weapon that can enable a patent owner to hold up implementers of a standard. Limiting this threat reduces the possibility that a patent holder will take advantage of the inclusion of its patent in a standard to engage in patent hold up, and provides comfort to implementers in developing their products.

Under the current Policy, and in SSOs generally, a patent holder that makes a RAND commitment agrees that licensing its essential patent claims on reasonable rates and other reasonable terms and conditions is appropriate compensation for their use in implementing the standard. Inherent in such a RAND commitment is a pledge to make licenses available to those who practice such essential patent claims as a result of implementing the standard—in other words, not to exclude these implementers from using the standard unless they refuse to take a RAND license. Over the past several years, U.S. patent courts have recognized this principle, making it unlikely that a patent holder bound by a RAND commitment, even one that does not address explicitly the availability of injunctive relief, can secure an injunction (in addition to monetary damages) in an infringement action.³⁵

³³ See *id.* Ex. B at 4 (stating that the parties “should engage in good faith negotiations (if sought by either party) without unreasonable delay or may litigate or, with parties’ mutual agreement arbitrate: over . . . Reasonable Rates or other reasonable terms and conditions . . . or any other related issues”).

³⁴ *Id.* Ex. B at 4.

³⁵ In *eBay, Inc. v. MercExchange, LLC*, 547 U.S. 338 (2006), the Supreme Court clarified that traditional principles of equity govern the issuance of injunctive relief in patent infringement suits, rejecting a rule that an injunction generally will issue on a finding of infringement. In *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), the Federal Circuit similarly declined to create special rules for injunctions in infringement cases involving FRAND-encumbered patents, concluding that the *eBay* decision “provides ample strength and flexibility for addressing the unique aspects of FRAND committed patents.” *Id.* at 1332. Applying this framework, the court affirmed the denial of injunctive relief, stating, *inter alia*, that the patentee’s FRAND commitments “strongly suggest that money damages are adequate to fully

The Update's express limitation on the availability of exclusionary relief may reduce any remaining uncertainty among implementers of IEEE-SA standards by limiting the ability of patent holders who have made an IEEE RAND Commitment to seek prohibitive orders that would prevent those willing to license from making, using, or selling products that comply with the standard. This provision may place additional limits on patent holders' ability to obtain injunctive relief in a U.S. court, but it appears that, in practice, it will not be significantly more restrictive than current U.S. case law, and the added clarity may help parties reach agreement more quickly. Although this provision is more restrictive than recent guidance on this issue from the U.S. government,³⁶ the U.S. government does not dictate patent policy choices to private SSOs. If IEEE determines that these limitations on exclusionary relief will benefit its standards-setting activities, it may decide to implement a policy that includes them, as long as such limitations do not violate the antitrust laws and are otherwise lawful.

Importantly, this provision does not affect the rights of patent holders (who have made an IEEE RAND Commitment) to seek patent damages, in the form of RAND compensation, for infringement of their patents when the parties cannot agree to a negotiated license. Nor does it purport to alter U.S. law regarding whether companies resolve patent infringement disputes on a claim-by-claim basis for individual patents or on the basis of a licensor's entire portfolio of patents relevant to a standard. Nevertheless, patent holders have expressed concern that this damages remedy is insufficient because it permits potential licensees to benefit by delaying paying reasonable compensation for a portfolio of patents until a patent holder has litigated each patent in its portfolio individually. The Department encourages patent holders and implementers to negotiate licensing agreements that are mutually acceptable, and there are incentives favoring a negotiated outcome. For example, implementers have incentives to reach agreement on licensing terms to reduce cost uncertainty as they bring products to market. In addition, litigation is expensive for both parties and licensees risk that a court will award a higher royalty for a patent that is found to be valid and infringed than a discounted pre-litigation rate offered by a licensor.

compensate for any infringement." *Id.* However, the court observed that "an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect." *Id.* But there also must be a sufficiently strong causal nexus between the alleged harm and the alleged infringement, a standard that has been difficult to meet where a patented technology is only one component of a complex product. *Apple Inc. v. Samsung Electronics Co.*, 678 F.3d 1314, 1324 (Fed. Cir. 2012) ("Sales lost to an infringing product cannot irreparably harm a patentee if consumers buy that product for reasons other than the patented feature. If the patented feature does not drive the demand for the product, sales would be lost even if the offending feature were absent from the accused product. Thus, a likelihood of irreparable harm cannot be shown if sales would be lost regardless of the infringing conduct."); *Apple Inc. v. Samsung Electronics Co.*, 695 F.3d 1370, 1374 (Fed. Cir. 2012).

³⁶ See JOINT DOJ-PTO STATEMENT, *supra* note 27, at 7; Letter from Michael B.G. Froman, Ambassador, U.S. Trade Rep., to Irving A. Williamson, Chairman, U.S. Int'l Trade Comm'n, at 2 n.3 (Aug. 3, 2013), available at http://www.ustr.gov/sites/default/files/08032013%20Letter_1.PDF; U.S. Government Member Contribution, Int'l Telecomm. Union, Telecommunication Standardization Advisory Group Contribution 43, Int'l Telecomm. Union 2, available at <http://www.nist.gov/standardsgov/upload/T13-TSAG-C-0043-A1-r1-E.pdf>.

In some cases, however, disputes regarding infringement, validity, enforceability, or the reasonableness of licensing terms need to be resolved by a court or, if the parties agree, another third-party. When parties need to turn to a third party, tools are available to ensure that patent holders are appropriately compensated and that potential licensees do not act unreasonably. For example, where potential licensees appear recalcitrant about taking a license, courts and other third-party decision makers may seek to ensure payment by requiring alleged infringers to post a bond or make escrow payments. Moreover, other potential licensees will be less likely to litigate once a patent holder has demonstrated the value of its patents (or a subset of the patents in its portfolio) through successful infringement litigation. Finally, at least one U.S. court has determined RAND licensing terms on a portfolio basis in an infringement action.³⁷

In sum, this provision furthers the procompetitive goal of providing greater clarity regarding the IEEE RAND Commitment concerning the availability of prohibitive orders, which could facilitate licensing negotiations, limit patent infringement litigation, and enable parties to reach mutually beneficial bargains that appropriately value patented technology. Moreover, because the provision is consistent with the direction of U.S. case law and patent holders can avoid its requirements by declining to submit an LOA, the Department concludes that it is unlikely to result in competitive harm.

B. Definition of Reasonable Rate

The Update adds a definition of “Reasonable Rate” as used in the Policy and the LOA. Your request states that this revision is aimed at improving licensing negotiations by adding clarity to this key term. The Update mandates consideration of one factor in determining a Reasonable Rate and recommends consideration of three other factors.

The mandatory factor states that a Reasonable Rate “shall mean appropriate compensation . . . excluding the value, if any, resulting from the inclusion of [the patent claim’s] technology in the IEEE standard.”³⁸ IEEE explains in its frequently asked questions that this requirement is meant to exclude from the rate the value arising from the cost or inability of implementers to switch from technologies included in a standard.³⁹

This provision aligns with generally accepted goals of RAND commitments, namely, providing the patent owner with appropriate compensation, while assuring implementers that they will not have to pay any hold-up value connected with the standardization process. U.S. courts addressing patent damages for RAND-encumbered patents have recognized these goals; for example, the U.S. Court of Appeals for the

³⁷ In re Innovatio IP Ventures, LLC Patent Litig., No. 11 C 9308, 2013 WL 5593609, at *45 (N.D. Ill. Oct. 3, 2013).

³⁸ Request, *supra* note 1, Ex. B at 2.

³⁹ FAQs, *supra* note 21, at 12 (“A Reasonable Rate does not include value arising from the cost or inability of implementers to switch from the Essential Patent Claim’s technology included in the standard.”).

Federal Circuit recently stated that “the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.”⁴⁰ This provision reduces the possibility that a patent holder that has made an IEEE RAND Commitment could hold up implementers of a standard and obtain higher prices (or more favorable terms) for its invention than would have been possible before the standard was set.

The Update also includes three recommended factors, stating that the determination of Reasonable Rates “should” include consideration of (1) “[t]he value that the functionality of the claimed invention or inventive feature within the Essential Patent Claim contributes to the value of . . . the smallest saleable Compliant Implementation that practices the Essential Patent Claim”; (2) “[t]he value that the Essential Patent Claim contributes to the smallest saleable Compliant Implementation that practices that claim, in light of the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that Compliant Implementation”; and (3) “[e]xisting licenses covering use of the Essential Patent Claim, where such licenses were not obtained under the explicit or implicit threat of a Prohibitive Order, and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.”⁴¹ Significantly, the Update makes clear that the determination of Reasonable Rates “need not be limited to” these factors.⁴² The Update, then, does not mandate any specific royalty calculation methodology or specific royalty rates.

These factors focus attention on considerations that may be likely to lead to the appropriate valuation of technologies subject to the IEEE RAND Commitment.⁴³ Regarding the first factor, the IEEE’s focus on the smallest saleable Compliant Implementation may be appropriate in calculating a royalty that is correctly tied to the patented invention, particularly when the product is complex and incorporates many patented technologies.⁴⁴ This factor does not mandate the use of the smallest saleable

⁴⁰ *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1232 (Fed. Cir. 2014); *see also* *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, 2013 WL 2111217, at *12 (W.D. Wash. Apr. 25, 2013) (“a RAND commitment should be interpreted to limit a patent holder to a reasonable royalty on the economic value of its patented technology itself, apart from the value associated with incorporation of the patented technology into the standard”).

⁴¹ Request, *supra* note 1, Ex. B at 2.

⁴² *Id.*

⁴³ *See* *Garretson v. Clark*, 111 U.S. 120, 121 (1884) (“When a patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits from it may be distinctly seen and appreciated.”).

⁴⁴ *See, e.g.,* *LaserDynamics, Inc. v. Quanta, Inc.*, 694 F.3d 51, 67 (Fed. Cir. 2012) (Calculation of damages based on sales of a multi-component product, as opposed to the smallest saleable infringing unit, required showing demand for the entire product is attributable to the patented feature); *Virmetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014) (smallest saleable practicing unit could be too large a base for an award of damages where that unit is “a multi-component product containing non-infringing features with

Compliant Implementation as the correct base. For example, the provision does not exclude evidence of the role of the relevant patented functionality in driving demand for the end product, or bar using end-product licenses to help determine the appropriate value to attribute to the technology.⁴⁵ Regarding the second recommended factor, appropriately apportioning the value of all essential patent claims in an IEEE standard addresses royalty stacking,⁴⁶ which may hamper implementation of a standard.⁴⁷ Finally, regarding the third recommended factor, courts consider whether licenses offered as evidence are comparable and hence relevant to calculating a reasonable royalty.⁴⁸ The Update does not prevent consideration of licensing agreements other than those specifically identified therein.⁴⁹

no relation to the patented feature”); *see generally Ericsson*, 773 F.3d at 1226-27 (explaining that “the governing rule is that the ultimate combination of royalty base and royalty rate must reflect the value attributable to the infringing features of the product, and no more,” and that an evidentiary principle “to help our jury system reliably implement” that rule requires a “realistic starting point for the royalty calculations by juries – often the smallest saleable unit and, at times, even less”).

⁴⁵ *Ericsson*, 773 F.3d at 1228 (holding that “real-world relevant licenses” can be relevant and reliable “where the damages testimony regarding those licenses takes into account the very types of apportionment principles contemplated in *Garretson* [i.e., the value attributed to the licensed technology]”).

⁴⁶ Mark Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEXAS L. REV. 1991, 1993 (2007).

⁴⁷ *See Ericsson*, 773 F.3d at 1209 (Standards-essential patents (SEPs) “pose two potential problems that could inhibit widespread adoption of the standard: patent hold-up and royalty stacking. Patent hold-up exists when the holder of a SEP demands excessive royalties after companies are locked into using a standard. Royalty stacking can arise when a standard implicates numerous patents, perhaps hundreds, if not thousands. If companies are forced to pay royalties to all SEP holders, the royalties will ‘stack’ on top of each other and may become excessive in the aggregate. To help alleviate these potential concerns, SDOs [Standards Development Organizations] often seek assurances from patent owners before publishing the standard. IEEE, for example, asks SEP owners to pledge that they will grant licenses to an unrestricted number of applicants on “reasonable, and nondiscriminatory” (“RAND”) terms.”); *In re Innovatio IP Ventures, LLC Patent Litig.*, No. 11 C 9308, 2013 WL 5593609, at *9 (N.D. Ill. Oct. 3, 2013) (observing that preventing royalty stacking is a “concern of the RAND obligation” because “most standards implicate hundreds, if not thousands of patents, and cumulative royalty payments to all standard-essential patent holders can quickly become excessive and discourage adoption of the standard”).

⁴⁸ In considering licenses that result from settlement, courts recognize generally the potential for litigation to distort licensing calculations and have excluded agreements negotiated under explicit threat of an injunction. *See, e.g., LaserDynamics*, 694 F.3d at 63-64 (considering whether licenses resulting from litigation are comparable and explaining that the “propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable,” though noting that it had been allowed “under certain limited circumstances”); *Ericsson*, 773 F.3d at 1227 (finding that prior licenses “are almost never perfectly analogous” so “the fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility”).

⁴⁹ FAQs, *supra* note 21, at 14 (“While the IEEE-SA Patent Policy recommends considerations for use in determining a Reasonable Rate, the policy does not prevent parties, courts, or other adjudicators from using additional considerations. For example, the policy recommends consideration of license agreements obtained without explicit or implicit threat of a Prohibitive Order (and where the circumstances and resulting license are otherwise sufficiently comparable), but the policy does not prevent consideration of any other licensing agreements.”).

The Update's Reasonable Rate definition provides additional clarity regarding the IEEE RAND Commitment, which could help speed licensing negotiations, limit patent infringement litigation, enable parties to reach mutually beneficial bargains that appropriately value the patented technology, and lead to increased competition among technologies for inclusion in IEEE standards. Consistent with U.S. case law, the definition appears designed to help ensure that reasonable royalties for patents that are essential to an IEEE standard, like royalties for other patents, compensate the patent holder for the value attributable to the essential patent or patents. For these reasons, it does not appear likely that the Update's definition of Reasonable Rate will result in competitive harm.

C. Any Compliant Implementation

The Update obligates patent holders bound by the IEEE RAND Commitment to license their patents for "any Compliant Implementation," meaning that a patent holder making an IEEE RAND Commitment cannot refuse to license its patents for use in IEEE-SA standards at certain levels of production.⁵⁰ Parties contemplating manufacturing products conforming to an IEEE standard, or investing in research and development related to such a standard, will know that they will have access to necessary technology, thereby facilitating implementation of these standards, to the benefit of consumers. Thus, this provision potentially could foster competition and innovation in products implementing IEEE-SA standards.

Even if this provision entails a departure from historical licensing practices for some licensors (who, for example, may prefer to license manufacturers of the end product, not manufacturers of the input), the Update does not mandate specific licensing terms at different levels of production. For example, the royalty rate need not necessarily be the same at all levels of production. In each case, the RAND royalty should reflect the value of the patented technology. If a patented invention's value is not reflected in the current price of upstream implementations, due to historical licensing practices, some adjustments may be necessary, and the Update does not prevent such adjustments.

This provision adds clarity as to who is entitled to a license under the IEEE RAND Commitment and has the potential to facilitate implementation of IEEE standards, to the benefit of consumers, and is unlikely to cause competitive harm.

⁵⁰ Request, *supra* note 1, Ex. B at 3 (stating that the IEEE RAND Commitment obligates a patent holder to make available a license "to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claim for use in conforming with the IEEE Standard"); *id.* at 1 (defining "Compliant Implementation" as "any product (e.g., component, sub-assembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of an IEEE Standard").

D. Reciprocity – Grantbacks

The Update permits a licensor to require a potential licensee to grant back a license to its own patents essential to the same standard, so that the licensor is not precluded from implementing the standard.⁵¹ This provision mitigates the concern that a firm taking advantage of the commitments others made to the standard can then engage in hold up of the same standard by asserting essential claims it has refused to license on RAND terms.

The Update prohibits licensors from demanding licenses to applicants' patents that are not essential to the same standard as part of their licensing terms and from forcing an applicant to take a license to patent claims that are not essential to the referenced standard.⁵² These prohibitions will reduce the possibility that a holder of a RAND-encumbered patent could leverage that patent to force a cross-license of, among other things, a potential licensee's differentiating patents and limit the potential for anticompetitive tying. A compulsory cross-license can, in some cases, decrease incentives to innovate.⁵³

Significantly, the Update leaves parties free to negotiate these types of terms voluntarily. It does not prohibit them from voluntarily negotiating licenses for entire patent portfolios, but adds clarity to the scope of permissible demands under the Policy.⁵⁴ By permitting voluntary cross licenses and package licensing, the Update seems likely to preserve the efficiencies of these arrangements, while addressing concerns about coercive cross-licensing and tying, and does not appear likely to result in competitive harm.

⁵¹ *Id.* at 2, 3 (stating that a patent holder submitting an LOA “may indicate a condition of Reciprocal Licensing,” meaning the submitter “has conditioned its granting of a license for its Essential Patent Claims upon the Applicant’s agreement to grant a license to the Submitter with Reasonable Rates and other reasonable licensing terms and conditions to the Applicant’s Essential Patent Claims, if any, for the referenced IEEE Standard, including any amendments, corrigenda, editions, and revisions”).

⁵² *Id.* at 3 (stating that a patent holder submitting an LOA “shall not condition a license on the Applicant’s agreeing (a) to grant a license to any of the Applicant’s Patent Claims that are not Essential Patent Claims for the referenced IEEE standard, or (b) to take a license for any of the Submitter’s Patent Claims that are not Essential Patent Claims, for the referenced IEEE standard”).

⁵³ This rule is similar to provisions adopted by patent pools that the Department previously reviewed positively. *See, e.g.*, Letter from Thomas O. Barnett, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, to William F. Dolan & Geoffrey Oliver, Partners, Jones Day, at 10-11 (Oct. 21, 2008), available at <http://www.justice.gov/atr/public/busreview/238429.htm> (concluding that a “narrowly tailored” clause requiring patent pool licensees to grant back to the pool the non-exclusive right to license patents essential to the standard covered by the pool was not likely to harm competition).

⁵⁴ FAQs, *supra* note 21, at 15 (“The IEEE-SA Patent Policy, however, does not prevent parties from mutually and voluntarily agreeing to a cross-license covering any patents (e.g., a portfolio license).”).

VI. Conclusion

The Department concludes that the Update has the potential to benefit competition and consumers by facilitating licensing negotiations, mitigating hold up and royalty stacking, and promoting competition among technologies for inclusion in standards. The Department cannot conclude that the Update is likely to harm competition. Further, to the extent that there are any potential competitive harms, the Department concludes that the Update's potential procompetitive benefits likely outweigh those harms. Accordingly, the Department has no present intention to take antitrust enforcement action against the conduct you have described. The Department's analysis in this letter applies only to the Update's impact on future LOAs; the Department offers no statement regarding its intentions concerning the application of the Update retroactively to previously submitted LOAs.⁵⁵

This letter expresses the Department's current enforcement intention and is predicated on the accuracy of the information you have provided. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive.

This statement is made in accordance with the Department's Business Review Procedure, 28 U.S.C. § 50.6. Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data you have submitted will be made publicly available within thirty days of the date of this letter, unless you request that part of the material be withheld in accordance with paragraph 10(c) of the Business Review Procedure.

Sincerely,



Renata B. Hesse

⁵⁵ Request, *supra* note 1, at 19 (the revised Policy “does not retroactively amend previously Accepted Letters of Assurance.”).