REQUEST FOR JOINT ENFORCEMENT GUIDELINES ON THE PATENT POLICIES OF STANDARD SETTING ORGANIZATIONS

Petition to the Department of Justice and Federal Trade Commission

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I. Introduction

The American Antitrust Institute (AAI)[1] petitions the Department of Justice (DOJ) and Federal Trade Commission (FTC) to issue joint enforcement guidelines on the patent policies of standard setting organizations (SSOs) and other standard setting coalitions under Sections 1 and 2 of the Sherman Act and Section 5 of the FTC Act.

Collaboratively set standards are not new. Standards include things as fundamental to the economy and society as currencies, weights and measures, time zones, and railroad track gauges. With the growth of the information and communication technology (ICT) sector, collaborative standard setting has become an even more prominent feature of the economic landscape. Standard setting can promote downstream competition, interoperability, and innovation.

SSO activities, however, carry significant anticompetitive risk. Standard setting involves cooperation among firms with horizontal and vertical connections and a de facto agreement among actual and potential competitors to support a jointly developed standard in lieu of competing with different standards. The anticompetitive risks from the process cannot be ignored and include collusion, exclusion, and holdup.

Patentees can use the standard setting process to engage in anticompetitive holdup. They can either fail to disclose their relevant patents and patent applications or make false promises to license patents on "reasonable and non-discriminatory" (RAND) terms. Through concealment or deception, they can induce SSOs to incorporate their technologies into the standard. After a standard has been commercialized, it can be difficult or impossible for manufacturers to switch to an alternate standard. Due to these lock-in effects, owners of patents included in the standard, known as standard essential patents (SEPs"), can be tempted to demand monopolistic royalties and bring infringement suits, seeking injunctions and exclusion orders against companies that fail to comply.

Patent holdup has harmful effects on consumers and the competitive process. First, patentees can acquire monopoly power through deception rather than "as a consequence of superior product, business acumen, or historical accident"[2] and inflict serious harm on consumers. Second, vertically integrated companies can use patent holdup to raise the costs of rivals that are locked into the standard and thereby reduce competition in the downstream market. Third, holdup, by diluting the credibility of a RAND commitment, hinders informed comparisons of cost and technical performance of alternative technologies at the standard selection stage. Last, the threat of holdup can, in general, deter the formation of SSOs and participation in them.

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[1] The American Antitrust Institute is an independent Washington-based non-profit education, research, and advocacy organization. Its mission is to increase the role of competition, assure that competition works in the interests of consumers and challenges abuses of concentrated economic power in the American and world economy. For more information, please see www.antitrustinstitute.org. This petition has been approved by the AAI Board of Directors. A list of contributors of $1,000 or more is available on request. The AAI has been particularly active on issues at the intersection of antitrust and intellectual property. The primary author of this petition is AAI Special Counsel Sandeep Vaheesan.

[2] United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966).

Incomplete and poorly defined SSO policies have enabled holdup. Patent policies have frequently been inadequate on multiple grounds. First, some SSOs have not required participants to make even a good faith effort to disclose relevant patents during the standard setting process. Second, RAND licensing terms have not been clearly defined, which has contributed to long-running royalty disputes. The lack of specificity in RAND terms has also enabled patent holders to seek injunctive relief in federal court and exclusion orders from the International Trade Commission (ITC), which defeat the whole purpose of the RAND commitment concept. Third, to compound the vagueness of a RAND commitment, processes to resolve disputes over RAND terms have frequently not been established. Last, many SSOs have not clearly stipulated that RAND commitments run with the patent, allowing patent holders to escape RAND obligations by assigning patents to third parties.

SSOs that fail to adopt clear, well-crafted patent policies should be held liable under the antitrust laws. The Supreme Court in two landmark decisions in the 1980s recognized the anticompetitive risks of collaborative standard setting and the need for procedural safeguards to protect against these harms. The Court held that SSOs could be liable for antitrust violations committed by participants acting under the SSO's apparent authority. Neither the Supreme Court nor the lower courts have identified the precise conduct or abnegation of oversight responsibilities that give rise to antitrust liability when SSO processes are misused for anticompetitive ends.[3] Given the risks associated with standard setting, the imposition of antitrust liability on SSOs for anticompetitive effects enabled by the failure to enact appropriate patent policies is consistent with the Supreme Court's expressed concerns and would encourage SSOs to establish sound procedural rules.

To motivate SSOs to adopt effective patent policies and provide them greater legal certainty, the DOJ and FTC should issue joint enforcement guidelines on SSO patent policies. Guidelines would build on and complement more than a decade of enforcement activity and competition advocacy by the antitrust agencies in the standard setting arena. These guidelines should list the minimum patent policies that SSOs must adopt to qualify for a safe harbor from DOJ and FTC antitrust enforcement action. The proposed guidelines would not offer a safe harbor for SSO participants that engage in holdup in spite of the SSO's procedural safeguards.

Specifically, SSOs should have to adopt and enforce the following policies to receive safe harbor treatment:

1) Mandatory disclosure of relevant patents as well as anticipated and pending patent applications, supported by good faith reasonable inquiry;

2) Royalty-free licensing of patents that are not disclosed in violation of disclosure obligations and consequently incorporated into a standard;

[3] The Standards Development Organization Advancement Act of 2004 (SDOAA) grants automatic rule of reason treatment to SSOs and de-trebles damages if the SSO pre-notifies the DOJ and the FTC. The SDOAA, however, does not apply to SSO participants. *See* 15 U.S.C.A. §§ 4301-4305.

3) Commitment to license SEPs on RAND terms;

4) Prohibition on SEP owners seeking injunctions and exclusion orders against any willing licensee;

5) Stipulation that licensing commitments run with the SEP;

6) Cash-only license option for individual SEPs; and

7) Efficient, cost-effective process to resolve disputes over RAND royalty and non-royalty terms.

As a general matter, the agencies should promote the adoption of procedural safeguards and appropriate oversight by SSOs to protect against all forms of anticompetitive conduct – holdup, collusion, and exclusion.

II. Facts

Through the standard setting process, firms in an industry, often with both horizontal and vertical relationships, come together to establish a standard, whether health, safety, or technological, that all industry participants can use. The availability of the standard to all comers in an industry is the hallmark of an open standard. Standard setting can promote interoperability, downstream competition and innovation.[4] Due to the need for interoperability between complementary technologies such as computer memory chips and motherboards and mobile phones and wireless networks, standards are at the heart of ICT. In fact, "[w]ithout industry standards, much of what we take for granted – such as being able to access the Internet from a wide array of networking devices – would not be possible."[5]

Standards often incorporate both patented and unpatented technologies. Some standards read on thousands of patents.[6] The patents incorporated into a standard and necessary to practice it become SEPs. Although owners of SEPs may obtain a monopoly position through the collective action of the standard setting process, many SSOs impose "important safeguards against monopoly power"[7] by requiring SEPs to be licensed on RAND terms. For patentees, foregoing monopoly-level royalties is often more than offset by the steady and substantial revenue stream that arises from inclusion in a successful standard.[8]

[4] Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889, 1896-98 (2002).
[5] George S. Cary et al., *The Case for Antitrust Law to Police the Patent Holdup Problem in Standard Setting*, 77 ANTITRUST L.J. 913, 914 (2011).
[6] Renata B. Hesse, Deputy Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, IP, Antitrust and Looking Back on the Last Four Years 18, Presented at Global Competition Review 2nd Annual Antitrust Law Leaders Forum (Feb. 8, 2013), *available at* http://www.justice.gov/atr/public/speeches/292573.pdf.
[7] Broadcom Corp. v. Qualcomm, Inc., 501 F.3d 297, 314 (3d Cir. 2007).
[8] Cary et al., *supra* note 5, at 920.

Due to the collaborative nature of standard setting and the implicit agreement among participants to forego developing and promoting competing standards, the process does carry significant anticompetitive risks. Participants in SSOs can use the cover of beneficial cooperation, without sufficient SSO oversight, to engage in collusive, exclusionary, and monopolistic behavior. For example, participants can use the SSO to fix prices on products that implement the standard.[9] They can also use standard setting to prevent superior or more cost effective technologies from being incorporated in the standard.[10]

Over the past twenty years, patent holdup over commercialized standards has received significant scrutiny.[11] At the standard selection stage, an SSO often selects among competing technologies – patented and unpatented – to include in a standard.[12] Once a standard is adopted, companies make substantial investments to manufacture standard-compliant products.[13] After these costs have been sunk, developing and switching to an alternative standard, even if technically possible, can be time-consuming and entail hundreds of millions of dollars in fresh investment.[14] It is thus often prohibitively difficult and costly to switch to an alternate standard following commercialization.

Holdup typically has occurred in one of two ways. First, patentees have failed to disclose their relevant patents to the SSO and encouraged or allowed the adoption of a standard that covers, at least in part, their patented technology.[15] Once the standard has been implemented and commercialized, the patent holder informs manufacturers that their standard-compliant products infringe its patents. It demands royalties in excess of RAND levels following this disclosure. Second, patentees have persuaded SSOs to incorporate their patents into the standard and agreed to license their SEPs to all companies implementing the standard on RAND terms.[16] Once the patent has been incorporated into the standard and the standard is commercialized, the patentee or an assignee of the patentee repudiates the RAND commitment and demands royalties above RAND levels. In assigning the relevant patents, the patentee and assignee may split the proceeds from higher royalties or share the windfall through the initial purchase price for the patent.

Whether a patentee conceals its patent during the standard setting process or breaches its RAND commitment, the effects of both types of conduct are of a piece. To coax manufacturers into paying extortionate royalties, patentees threaten to file patent infringement suits and seek

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[9] Lemley, *supra* note 4, at 1937.
[10] *Id.*
[11] *See, e.g.*, Dell Computer Corp., 121 F.T.C. 616 (1995)(Consent Order); Union Oil Co. of Cal., FTC Docket No. 9305 (Aug. 2, 2005) (Decision and Order); *Broadcom*, 501 F.3d at 297; Rambus Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008), *cert. denied,* 129 S. Ct. 1318 (2009); Negotiated Data Solutions LLC, FTC Docket No. C-4234, 2008 FTC LEXIS 119 (Sept. 22, 2008) (Complaint); Robert Bosch GmbH, FTC Docket No. C-4377 (Nov. 26, 2012) (Complaint & Decision); Motorola Mobility LLC and Google Inc., FTC File No. 121-0120 (Jan. 3, 2013) (Decision and Order).
[12] Jonathan L. Rubin, *Patents, Antitrust, and Rivalry in Standard-Setting*, 38 RUTGERS L.J. 509, 520-21 (2007).
[13] *Id.* at 518.
[14] Mark A. Lemley, *Ten Things To Do about Patent Holdup of Standards (and One Not To)*, 48 B.C. L. REV. 149, 153 (2007).
[15] *See, e.g.*, *Rambus*, 522 F.3d at 459-60.
[16] *See, e.g.*, Negotiated Data Solutions, FTC File No. 051-0094 (Jan. 23, 2008) (Agreement Containing Consent Order, Statement of the Commission, and Complaint).

injunctions in federal court and exclusion orders at the ITC to block the sale and prohibit the importation, respectively, of products that practice the standard.[17] If a company manufactures its products entirely abroad, an exclusion order is functionally identical to an injunction. Injunctions and exclusion orders can lead to hundreds of millions of dollars or more in lost sales.

Because of the costly and potentially devastating nature of injunctions and exclusion orders, companies facing infringement suits have a strong incentive to acquiesce to the patentee's royalty demands. With the risk of injunctions and exclusion orders in the background, "[t]he prices achieved by negotiation between a buyer and an IP supplier in this environment will therefore tend *not* to reflect the value of the patent before it was incorporated into the . . . standard."[18] The threat points in negotiations are skewed strongly in the patentee's favor because of the manufacturer's standard-specific investment. On account of their leverage over manufacturers, patentees can obtain royalties that reflect the potential lost revenues for manufacturers from injunctions and exclusions orders, and not the incremental value of the patentee's technology at the standard selection stage.[19] Patentees under these circumstances can extract extortionate royalties even on weak SEPs that may be found to be invalid in a full trial.[20]

III. Legal Analysis: Why SSOs Should Be Liable Under the Antitrust Laws for Failing to Enact Adequate Patent Policies

1. Patent Holdup Has Serious Anticompetitive Effects

The anticompetitive effects of patent holdup are manifold. Patentees can obtain and exercise monopoly power by means other than "superior product, business acumen, or historical accident."[21] They succeed not through competition on the merits but through deception in a collaborative process. Multiple federal appellate courts have held that deceptive conduct can support claims of monopolization.[22]

The monopoly power arising from patent holdup does not merely shift rents between large manufacturers and large technology companies. Frequently, all companies that manufacture a product embodying the standard are forced to pay higher royalty rates. As a result of these uniformly higher costs, manufacturers can pass through their increased royalties to consumers in the form of

[17] Fiona M. Scott Morton, Deputy Assistant Att'y Gen. for Economic Analysis, Antitrust Div., U.S. Dep't of Justice, The Role of Standards in the Current Patent Wars 2 n.4, Presented at Charles River Associates Annual Brussels Conference: Economic Developments in European Competition Policy (Dec. 5, 2012), *available at* http://www.justice.gov/atr/public/speeches/289708.pdf.
[18] Fiona M. Scott Morton, Deputy Assistant Att'y Gen. for Economic Analysis, Antitrust Div., U.S. Dep't of Justice, Patent Portfolio Acquisitions: An Economic Analysis 2, Presented at Fifth Annual Searle Conference on Antitrust Economics and Competition Policy (Sept. 21, 2012) (emphasis added), *available at* http://www.justice.gov/atr/public/speeches/288072.pdf.
[19] *Id.*
[20] Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007).
[21] *Grinnell*, 384 U.S. at 570-71.
[22] *See, e.g.*, United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001); Conwood Co. v. U.S. Tobacco Co., 290 F.3d 768 (6th Cir. 2002).

higher prices rather than internalize them as reduced profits.[23] Unocal's patent holdup against refiners producing gasoline compliant with California's air quality regulations illustrates the harm to consumers. If Unocal's conduct were left unchallenged, the FTC estimated that the company's royalty demands would cost California drivers $450 million more in annual gasoline expenditures.[24]

Vertically integrated companies that own SEPs and manufacture standard-compliant products can engage in holdup to raise their rivals' costs.[25] They can demand higher royalties and impose higher costs on other manufacturers of standard-compliant products, forcing them to increase the prices of their products. Vertically integrated companies can, in turn, capture market share, profitably increase prices, or both. In other words, raising royalties on SEPs to rivals can be used to hobble these competitors and weaken competition in the downstream product market.

Patent holdup frustrates the SSO's ability to make informed judgments about competing technologies and "harms the competitive process by obscuring the costs of including proprietary technology in a standard."[26] At the standard selection stage, SSOs often have to choose between technologies in the public domain or higher performance patented alternatives. Sometimes, an SSO may find that increased technical performance does not justify the costs of using a patented method. It may instead select a free, non-proprietary solution. While a RAND commitment does not provide definitive cost information on proprietary technologies, it can provide manufacturers of standard-compliant products at least some assurance that the royalties on SEPs will be reasonable.[27] If patent holders evade or repudiate RAND commitments once a standard has been adopted and commercialized, they undercut confidence in future standard setting and frustrate the ability of SSOs to compare competing technologies ex ante.

The risk of holdup may have adverse effects on the creation of standards more generally.[28] Frequent or prominent occurrences of holdup can deter the formation of and participation in SSOs in the future. Firms, fearing the threat and costs of holdup, may conclude that the benefits of SSO participation do not warrant the risks. They may forgo manufacturing products that are standard-compliant. For consumers, the result may be reduced product interoperability, downstream competition and innovation as fewer standards are established.

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[23] Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603, 639 (2007).
[24] Union Oil Co. of Cal., FTC File No. 011-0214 (June 10, 2005) (Analysis of Proposed Consent Order to Aid Public Comment).
[25] Hesse, *supra* note 6, at 18.
[26] *Broadcom*, 501 F.3d at 314.
[27] Herbert Hovenkamp, *Competition in Information Technologies: Standards-Essential Patents, Non-Practicing Entities and FRAND Bidding* 12, University of Iowa Legal Studies Research Paper No. 12-32 (Nov. 2012).
[28] *Id.* at 17.

2. SSOs Should Be Liable for Failing to Enact Procedural Safeguards to Prevent Holdup Behavior

By failing to adopt clear, well-defined patent policies, SSOs have facilitated the holdup conduct of participants.[29] There have often been multiple inadequacies in SSO patent policies. First, some SSOs have not imposed a patent disclosure policy on participants, enabling patentees to conceal relevant patents until a standard has been adopted and commercialized. Second, RAND licensing terms have not been defined, and this has led to disputes over royalties and other terms once a standard has been commercialized. Notably, many SSOs have failed to clarify whether RAND commitments permit patent holders to seek injunctions and exclusion orders and under what circumstances. Third, processes to resolve disputes over RAND terms have in most cases not been established. This failure has led to costly and potentially anticompetitive patent infringement suits in court. Last, many SSOs have not required RAND commitments to run with the patent. In the absence of a clear rule that RAND obligations run with an SEP, patentees have assigned their patents to third parties, and those assignees have asserted that they are not bound by the original licensing commitment.

More than thirty years ago, the Supreme Court recognized the anticompetitive risks of collaborative standard setting and the essential role of SSOs in preventing these threats from materializing. In *American Society of Mechanical Engineers v. Hydrolevel Corp.*, the Supreme Court observed that standard setting can be "rife with opportunities for anticompetitive activities."[30] It held that SSOs could be held liable for antitrust violations committed by participants acting with the SSO's apparent authority.[31] The Court stated that the SSO "is best situated to prevent antitrust violations through the abuse of its reputation"[32] and that by imposing antitrust liability on SSOs "[Pressure] [will be] brought on [the SSO] to see to it that [its] agents abide by the law."[33] The Court rejected a rule that would immunize SSOs from antitrust liability if the agents did not seek ratification from the SSO for their anticompetitive conduct.[34] It also declined to immunize an SSO if its agents did not intend to benefit it through their anticompetitive conduct.[35] The Court held that these limitations on SSO liability would encourage SSOs to ignore the anticompetitive behavior of participants and not adopt policies that could prevent anticompetitive practices in the first place.[36] Implicitly, the Court imposed a duty on SSO officials to monitor and assume responsibility for assuring the fairness of the SSO process. In an October 2012 decision, a district court in Pennsylvania affirmed the vitality of the *Hydrolevel* doctrine and denied an SSO's motion-to-dismiss

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29 Interview with Howard Shelanski, Director, FTC Bureau of Economics, ANTITRUST SOURCE, Dec. 2012, at 1, 6; Robert A. Skitol, *Concerted Buying Power: Its Potential for Addressing the Patent Holdup Problem in Standard Setting*, 72 ANTITRUST L.J. 727, 728-29 (2005).
30 456 U.S. 556, 571 (1982).
31 *Id.* at 577-78.
32 *Id.* at 573.
33 *Id.* at 572.
34 *Id.* at 573.
35 *Id.* at 574.
36 *Id.*

over allegations that SSO participants had abused their leadership positions to engage in exclusionary conduct.[37]

The Court in *Allied Tube & Conduit Corp. v. Indian Head Inc.* held that the *Noerr-Pennington* doctrine does not confer immunity on firms that abuse the SSO process to engage in exclusionary conduct.[38] Although not directly addressing the question of liability of the SSO, it articulated the importance of SSO policies in preventing anticompetitive behavior. The Court noted that the "hope of procompetitive benefits [from standard setting activity] depends upon the existence of safeguards sufficient to prevent the standard-setting process from being biased by members with economic interests in restraining competition."[39] And, effective safeguards require effective oversight.

Under *Hydrolevel*, SSOs can be liable for patent holdup if patentees use positions of authority in an SSO to preclude the SSO from implementing an effective patent policy and thereby obtain monopoly power through opportunistic means. For example, patent holders can use their SSO positions to engage in concealment and deception to obtain ex post monopoly power. Or, as a member of an SSO working group, a patentee may make false promises to license its patents on RAND terms. Because these parties are acting as agents of the SSO, the SSO can be liable under the antitrust laws for not policing the conduct of these patentees and not preventing anticompetitive holdup. Even without occupying a leadership position in an SSO working group, a patentee may be imbued with the authority of the SSO through a high degree of involvement in establishing a new standard. Although the boundaries of *Hydrolevel* are not precisely defined, an SSO could be liable for a patentee's holdup conduct in this situation as well.

Even when a patentee that engages in holdup does not act under the SSO's apparent authority, imposing liability on an SSO for anticompetitive conduct enabled by its failure to adopt adequate procedural safeguards would be "a logical and desirable application of . . . the *Hydrolevel* decision."[40] And, as the Supreme Court has stated, the antitrust laws should respond to "changed circumstances and the lessons of accumulated experience."[41] The Supreme Court in *Allied Tube* recognized the realization of procompetitive benefits from standard setting is dependent on the "existence of safeguards"[42] to prevent anticompetitive abuse of SSO processes. Given the incentives of participants to engage in anticompetitive conduct, it is incumbent on the SSO to ensure that its processes are not misused. If an SSO does not enact patent policies that clearly and effectively

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[37] Trueposition, Inc. v. LM Ericsson Telephone Co., 899 F. Supp. 2d 356 (E.D. Pa. 2012).
[38] 486 U.S. 492, 511 (1988).
[39] *Id.* at 509.
[40] Skitol, *supra* note 29, at 729; The FTC under its Section 5 authority is not bound to follow Sherman Act precedents and can bring enforcement actions that go beyond the reach of decisions like *Hydrolevel* and *Allied Tube*, if necessary. The Supreme Court has interpreted Section 5 to encompass the Sherman Act and Clayton Act but also reach conduct that does not necessarily violate those two other antitrust statutes. Under the penumbras of Section 5, the FTC could bring enforcement actions against SSOs that fail to adopt clear and well-defined patent policies and through this omission enable patent holdup behavior. *See* FTC v. Sperry & Hutchinson Co., 405 U.S. 233 (1972).
[41] State Oil Co. v. Khan, 522 U.S. 3, 20 (1997).
[42] *Allied Tube*, 486 U.S. at 509.

define the obligations of participating patent holders and facilitates subsequent holdup conduct, the SSO should be liable for failing to police its process.

A credible threat of antitrust liability on SSOs, whether under the Sherman Act or FTC Act, would motivate them to adopt well-crafted patent policies. The agencies should bring enforcement actions against not only parties that engage in holdup but also against SSOs if inadequate patent policies contributed to the anticompetitive conduct. If SSOs faced liability for not requiring disclosure of relevant patents from participants or not mandating that RAND commitments run with the patent, they would have a powerful incentive to strengthen their patent policies. Complete elimination of holdup behavior may not be possible but SSOs should be given the incentive to reduce both the likelihood and magnitude of harm from holdup outcomes.

IV. Agency Activity in the Standard Setting Context

Since the mid-1990s, the FTC has brought several enforcement actions against parties that have used their SEPs to engage in holdup. The antitrust agencies have further complemented their enforcement record with competition advocacy that includes amicus briefs, public comments to other federal agencies, and speeches by their leadership. In recent years, agency officials have stressed the critical role of SSOs in preventing holdup behavior and called on SSOs to improve their patent policies.

In 1995, the FTC brought an action against Dell for its holdup over the VL-bus, a standard for instruction transfer between a computer's central processing units and peripheral devices developed by the Video Electronics Standards Association.[43] A Dell representative falsely certified during the standard selection phase that he did not believe that the proposed standard would infringe any known copyright, patent, or trademark. After computer makers sold more than 1 million personal computers that used the VL-bus standard, Dell contacted some of these companies and asserted that the VL-bus standard infringed on a patent it obtained in 1991. It demanded royalties and threatened infringement actions against companies that did not comply. The FTC entered into a consent order with Dell whereby Dell agreed not to enforce its patent against companies that manufactured computers using the VL-bus standard.

In 2002, the FTC filed suit against Rambus for holdup in the dynamic random access memory industry.[44] In the 1990s, Joint Electronic Device Engineering Council began to develop a standard for synchronous dynamic random access memory (SDRAM). Rambus participated in the process but failed to disclose that it had patents or pending applications implicated in the standard that was ultimately adopted. After the standard was commercialized, Rambus demanded monopolistic royalties and brought patent infringement actions against manufacturers of SDRAM chips, seeking injunctive relief. The FTC found that Rambus violated Section 5 and ordered it to license its patents at a reasonable royalty. The D.C. Circuit, however, reversed the FTC's decision

[43] Dell Computer Corp., 121 F.T.C. 616 (1996).
[44] Rambus Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008).

and found that the Commission had failed to establish the necessary causation between Rambus's conduct and its subsequent monopoly power over the SDRAM standard.[45]

The FTC in 2003 brought an enforcement action against Unocal for engaging in holdup over the production of gasoline that complied with the air quality standards of the California Air Resources Board (CARB).[46] Unocal participated in the CARB process for developing a new formulation for gasoline sold in-state in the summer, which would reduce air pollution from cars. The company released the results of research it had conducted on the relationship between gasoline properties and air emissions and falsely stated that these findings were nonproprietary. In reality, Unocal had patents or was in the process of obtaining patents for this research. The new formulation of summertime gasoline adopted by CARB partly incorporated Unocal's research. After refiners invested billions of dollars to modify their facilities to produce CARB-compliant gasoline, Unocal asserted that CARB summertime gasoline infringed its patented research and demanded royalties on every gallon of gasoline sold in California. The FTC entered into a consent order with Unocal, prohibiting the company from enforcing its patents against producers of CARB gasoline.

The FTC issued a complaint in 2008 against Negotiated Data Solutions (N-Data) for repudiating a licensing commitment made by its predecessor-in-interest National Semiconductor (National).[47] When the Institute of Electrical and Electronics Engineers was developing the Fast Ethernet standard, National had offered to license its NWay technology to all interested parties for a one-time fee of $1000. The Fast Ethernet standard incorporated NWay and was widely adopted. National assigned several relevant patents to Vertical Networks, which later assigned some of them to N-Data. Vertical and N-Data repudiated National's licensing commitment, demanded higher royalties, and threatened infringement actions against companies that failed to comply. Under the consent order with the FTC, N-Data agreed to abide by National's original licensing commitment.

In late 2012 and early 2013, the FTC entered into consent orders with Robert Bosch (Bosch) and Google, respectively, to remedy their abrogation of RAND commitments on SEPs.[48] Bosch reneged on RAND commitments it had made on SEPs relating to air conditioning recycling, recovery, and recharge devices. Google, and its predecessor in interest Motorola Mobility, had disclaimed RAND commitments made on SEPs incorporated in smartphones, tablet computers, and video game systems. In both cases, the parties entered into a consent order with the FTC and agreed to honor their RAND obligations.

In 2011 and 2012, the DOJ investigated two large patent portfolio acquisitions: 1) the acquisition by Rockstar – a consortium comprising Apple, Microsoft, Research in Motion, and others – of patents from the bankrupt Nortel Networks, and 2) Google's purchase of Motorola

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45 *Id.*
46 Union Oil Co. of Cal., FTC Docket No. 9305 (Aug. 2, 2005) (Decision and Order).
47 Negotiated Data Solutions LLC, FTC Docket C-4234, 2008 FTC LEXIS 119 (Sept. 22, 2008).
48 Robert Bosch GmbH, FTC Docket No. C-4377(Nov. 26, 2012) (Complaint & Decision); Motorola Mobility LLC and Google Inc., FTC File No. 121-0120 (Jan. 3, 2013) (Decision and Order).

Mobility.[49] In both cases, SEPs were among the patents being acquired. The DOJ expressed concerns that the acquirers would renege on RAND commitments made by their predecessors and engage in holdup conduct to obtain higher royalty revenues and injure competitors in markets for products like smartphones and tablet computers. After a lengthy investigation, the DOJ did not bring an enforcement action against either transaction, partly on the basis that the acquirers made public promises to honor existing RAND commitments on the acquired SEPs.

In addition to enforcement actions, the antitrust agencies have engaged in competition advocacy on patents and standard setting in the federal courts and before other federal agencies. The FTC filed an amicus brief in *Apple Inc. v. Motorola, Inc.* in the fall of 2012 that called on the Federal Circuit to recognize the threat of patent holdup in standard setting and apply the four-factor equitable test articulated by the Supreme Court in *eBay, Inc. v. MercExchange L.L.C.*[50] to Motorola's demand for injunctive relief against users of its SEPs with that holdup threat in mind.[51] Raising similar concerns, the FTC submitted comments in June 2012,[52] and the DOJ and PTO issued a policy statement in January 2013[53] that encouraged the ITC to consider the competition implications of issuing exclusion orders in cases involving SEPs and counseled against granting exclusion orders as a matter of course for the infringement of RAND-encumbered SEPs. Earlier this year, the DOJ and FTC filed joint comments to the Patent and Trademark Office (PTO) in support of the PTO's proposed rule that would mandate disclosures of patent ownership and assignments.[54]

As part of their competition advocacy efforts, officials at the antitrust agencies have in recent years broadened their focus beyond individual SSO participants and directed attention to SSOs themselves. They have faulted SSOs for failing to implement procedural safeguards against holdup conduct and called for improvements in SSO patent policies. Christine Varney, the former head of the DOJ's Antitrust Division, said that "clearer rules will allow for more informed participation and will enable participants to make more knowledgeable decisions regarding implementation of the standard. Clarity alone does not eliminate the possibility of hold-up . . . but it is a step in the right

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49 Press Release, U.S. Dep't of Justice, Statement of the Department of Justice's Antitrust Division on Its Decision to Close Its Investigations of Google Inc.'s Acquisition of Motorola Mobility Holdings Inc. and the Acquisitions of Certain Patents by Apple Inc., Microsoft Corp. and Research in Motion Ltd. (Feb. 13, 2012), *available at* http://www.justice.gov/opa/pr/2012/February/12-at-210.html.
50 547 U.S. 388 (2006).
51 Brief for Federal Trade Commission as Amicus Curiae Supporting Neither Party, Apple, Inc. v. Motorola, Inc., 869 F.Supp.2d 901 (N.D. Ill. 2012), *appeal docketed* Nos. 2012-1548, 2012-1549 (Fed. Cir. 2012).
52 Third Party United States Federal Trade Commission's Statement on the Public Interest, In the Matter of Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof, U.S. Int'l Trade Comm'n, Inv. No. 337-TA-752 (June 6, 2012), *available at* http://www.ftc.gov/os/2012/06/1206ftcgamingconsole.pdf.
53 U.S. Dep't of Justice & U.S. Patent & Trademark Office, Policy Statement on Remedies for Standard-Essential Patents Subject to Voluntary F/RAND Commitments 8 (Jan. 8, 2013), *available at* http://www.justice.gov/atr/public/guidelines/290994.pdf.
54 Comments of the Antitrust Div. of the U.S. Dep't of Justice & the U.S. Fed. Trade Comm'n, In the Matter of Notice of Roundtable on Proposed Requirements for Recordation of Real-Party-in-Interest Information Throughout Application Pendency and Patent Term, to the U.S. Dep't of Commerce Patent & Trademark Office, No. PTO-P-2012-0047 (Feb. 1, 2013), *available at* http://www.justice.gov/atr/public/comments/292147.pdf.

direction."[55] Joseph Wayland, the former acting head of the Antitrust Division, stated that "[o]ne way for standards bodies to help their members avoid running afoul of antitrust laws is to set forth well-defined patent policy rules that minimize ambiguity."[56] In October 2012, Deputy Assistant Attorney General Renata Hesse recommended six patent policy reforms that SSOs should adopt to reduce the risk of patent holdup.[57]

Economists at the DOJ and FTC have expressed similar views and also urged SSOs to improve their processes. Howard Shelanski, the current director of the Bureau of Economics at the FTC, stated in an interview that "SSOs do not do a good enough job [in clarifying participants' obligations] and [are] part of why we have ex post hold-up problems."[58] He added "SSOs should be pushed to adopt clearer and better agreements."[59] Shelanski, Fiona Scott Morton, the former chief economist at the Antitrust Division, and Kai-Uwe Kühn, the former chief economist at the DG Competition in the European Commission, co-authored an article stressing the importance of clear, effective SSO patent policies. They wrote that "many existing SSO policies are not strong or clear enough to achieve"[60] the goals of preventing holdup and promoting competition. They stated that "SSOs can substantially reduce the problem of hold-up and litigation . . . by reforming their [intellectual property] policies."[61]

V. The DOJ and FTC Should Issue Joint Enforcement Guidelines that Provide Safe Harbor for SSOs that Adopt and Enforce the Following Patent Policies

To encourage the adoption of sound patent policies and offer greater legal clarity for SSOs, the DOJ and FTC should issue joint guidelines on when they will bring enforcement actions against SSOs for failing to adopt satisfactory patent policies and enabling holdup conduct by participants. The guidelines should spell out what minimum patent policies SSOs must enact to qualify for a safe harbor from DOJ and FTC enforcement action. The proposed guidelines would not offer a safe harbor for SSO participants that engage in holdup in spite of the SSO's procedural safeguards.

Joint enforcement guidelines would build on and complement the agencies' record of enforcement actions against parties that engage in holdup and competition advocacy in the standard

[55] Christine A. Varney, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Promoting Innovation Through Patent and Antitrust Law and Policy, Remarks as Prepared for the Joint Workshop of the U.S. Patent and Trademark Office, the Federal Trade Comm'n, and the Dep't of Justice on the Intersection of Patent Policy and Competition Policy: Implications for Promoting Innovation 8 (May 26, 2010), *available at* http://www.justice.gov/atr/public/speeches/260101.htm.
[56] Joseph F. Wayland, Acting Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Antitrust Policy in the Information Age: Protecting Innovation and Competition, Remarks as Prepared for the Fordham Competition Law Institute 8 (Sep. 21, 2012), *available at* http://www.justice.gov/atr/public/speeches/287215.pdf.
[57] Renata Hesse, Deputy Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Six "Small" Proposals for SSOs Before Lunch, Remarks as Prepared for the ITU-T Patent Roundtable 9-10 (Oct. 10, 2012), *available at* http://www.justice.gov/atr/public/speeches/287855.pdf.
[58] Shelanski, *supra* note 29, at 6.
[59] *Id.* at 7.
[60] Kai-Uwe Kühn, Fiona Scott Morton & Howard Shelanski, *Standard Setting Organizations Can Help Solve the Standard Essential Patents Licensing Problem*, COMPETITION POL'Y INT'L, Mar. 2013 (Special Issue), at 1, 4.
[61] *Id.* at 3.

setting arena, including their emphasis on the central role of SSOs in preventing holdup. Following Supreme Court precedent, guidelines would further underscore the critical role SSOs play in preventing holdup and apply appropriate pressure on SSOs to adopt clear and effective patent policies. This focus on SSOs themselves is essential given that the collaborative nature of standard setting has both procompetitive and anticompetitive potential. As Kuhn, Scott Morton, and Shelanski wrote in their recent article, SSOs "have the responsibility to ensure that the market power [of SEP owners] is constrained."[62]

This petition suggests patent policies that SSOs should adopt to qualify for a safe harbor from agency enforcement actions. In enumerating minimal requirements for an adequate patent policy, the petition follows, in large measure, the recommendations offered by Renata Hesse, Fiona Scott Morton, Howard Shelanski, and Joseph Wayland.[63] Mere adoption of these recommended policies would not be sufficient. SSOs should also enforce compliance and ensure fairness. The state action doctrine, though it is not applicable to SSOs, offers an illustrative analogy with its two-part test.[64] SSOs, to qualify for the safe harbor, should both adopt patent policies that conform to the requirements of the guidelines and engage in active supervision of their processes to ensure compliance. Our proposals recognize and respect the proposition that "one size does not fit all" and that each SSO should have flexibility to experiment with different approaches to the patent holdup problem as long as basic fairness is sought and conduct is monitored to see that it is achieved.

1. Disclosure of Patents as well as Anticipated and Pending Patent Applications Supported by "Good Faith Reasonable Inquiry"

An SSO participant should be required to disclose patents as well as anticipated and pending patent applications which it has identified through a good faith reasonable inquiry to be essential or likely to become essential to implementation of the standard being considered. The disclosure of anticipated and pending patent applications, in addition to patents, is critical. Technology companies have concealed anticipated and pending patent applications from SSOs as a means of obtaining monopoly power once a standard is commercialized.[65] This disclosure requirement would also facilitate a more robust technology evaluation process at the standard selection stage.

A disclosure requirement supported by a good faith reasonable inquiry represents a pragmatic compromise between all-or-nothing alternatives. The other options are disclosing either only relevant patents known to the employees participating in an SSO process or all relevant patents identified through an exhaustive (and costly) search of the participant's entire patent portfolio.[66] A disclosure requirement limited to what is known to the representative employee(s) promotes opportunistic conduct. With this minimal obligation, participants that are intent on engaging in holdup are encouraged to send employees who are not informed about their companies' patent portfolios. At the very least, even assuming good faith conduct from all participants, the risk of

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[62] *Id.* at 3-4.
[63] Hesse, *supra* note 57, at 9-10; Kuhn et al., *supra* note 60, at 4-5; Wayland; *supra* note 56, at 9.
[64] California Retail Liquor Dealers Ass'n v. Midcal Aluminum, Inc., 445 U.S. 97, 105 (1980).
[65] *See, e.g.*, *Rambus*, 522 F.3d at 459-60.
[66] Skitol, *supra* note 29, at 732.

essential patents and patent applications remaining unknown to the SSO under this approach is unacceptably high. An exhaustive patent portfolio search would, in contrast, reduce the risk of nondisclosure but would entail significant expenses for SSO participants and could introduce delay into the standard selection process.

2. Breach of the Foregoing Disclosure Obligation Should Result in a Zero Royalty License If an Undisclosed Patent Is Incorporated into Standard

For the disclosure obligation to be effective, an undisclosed patent incorporated into a standard should be licensed on a royalty-free basis. SSOs should establish at least a rebuttable presumption that the failure to disclose any such SEPs was the result of the owner's failure to undertake the required good faith reasonable inquiry. If the undisclosed patents are incorporated into the standard under these circumstances, the participant should be required to license the patents on a royalty-free basis. With this rule, technology companies would have the incentive to undertake the required inquiry into their patent portfolios. They would also be encouraged to promote the inclusion of their patents in a standard using fair and open means, rather than through concealment and deception. A zero-royalty penalty for patent inclusion arising from non-disclosure would result in the sacrifice of a potentially large stream of royalty revenues. And, a royalty-free license would protect companies that implement the standard from ex post holdup behavior.

A royalty-free license has a critical advantage over a minimal non-zero royalty. The royalty-free license penalty would avoid the complexities and costs associated with computing a royalty figure, whether through litigation or an alternative dispute resolution mechanism. Under some circumstances, as described below, the administrative expense of computing a reasonable royalty is warranted. When the calculation is necessitated by a patentee's negligent or intentional non-disclosure, however, the cost and time involved are not justified.

3. Ex Ante RAND Licensing Commitment

Patent holders should be required to agree to license patents that are incorporated into the standard on RAND terms. While RAND has been criticized for being an amorphous term, it is not entirely devoid of meaning. A RAND license has a royalty term that reflects a patent's incremental value to the standard before adoption and commercialization. In other words, the royalty should reflect the incremental benefit of including the patent instead of patented or non-proprietary alternatives at the standard selection stage. In contrast, a RAND royalty does not reflect the value of a patent once a standard has been adopted and commercialized. At this stage, due to the lock-in effects that arise from commercialization, a patentee, through the threat of injunctions and exclusion orders, may be able to appropriate surplus far in excess of the incremental contribution of its patent or patents. An analog from contract law is instructive: "[I]n a breach of contract action in which the plaintiff contractor had bid on the job in a competitive market, it would not be proper to look at the price charged in a monopoly transaction to determine damages."[67]

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[67] Hovenkamp, *supra* note 27, at 12.

To reduce the risk of ex post disputes over RAND licensing terms, SSOs should consider requiring patentees to disclose at specified times during the standard-setting process the maximum royalty and the most restrictive non-price terms at which they will license their patents. This approach would allow SSO working groups to make fully informed comparisons of cost and technical performance when deciding between competing technologies to incorporate into a standard. *Unilateral* disclosure of royalty rates and other licensing terms would avoid concerns about the anticompetitive potential of joint negotiations. In addition, ex ante disclosure eliminates or at least reduces the threat of disputes over licensing terms once a standard is commercialized. Individual companies that implement the standard can be confident that the royalty for the patentee's technology will not exceed the stipulated rate. In 2006, the VITA SSO mandated ex ante disclosure of most restrictive licensing terms in its new patent policy and received a favorable business review letter from the DOJ.[68] Given the costs and time involved in ex ante disclosure of licensing terms, however, this policy may not be appropriate for all SSOs.

4. Stipulation that Participants Whose Patents Are Incorporated into the Standard Are Prohibited from Seeking Injunctions and Exclusion Orders against Willing Licensees

SSOs should prohibit SEP owners that have made licensing commitments from seeking injunctions or exclusion orders against companies that implement the standard. The threat of obtaining court or ITC orders that bar the sale of standard-compliant products enables patentees to engage in holdup. "An injunction puts not just a marginal amount of a company's return at stake, but indeed its entire revenue stream on a particular line of products using the IP."[69] Without this threat, manufacturers would face a more equal negotiating landscape and have less incentive to agree to extortionate royalty demands of patentees. The Supreme Court in *eBay* held that plaintiffs in patent infringement suits should not be granted injunctions as a matter of course and that courts should instead apply the traditional four-factor test for awarding injunctions.[70] Yet, injunctions continue to be granted.[71] And, importantly, the Federal Circuit has held that the ITC is not obligated to apply the *eBay* test when deciding whether to issue an exclusion order.[72]

SSOs should make this restriction on injunctions and exclusion orders explicit in their patent policies. Arguably, existing RAND commitments already bar seeking injunctive relief or exclusion orders and thereby protect against holdup conduct.[73] "[I]f RAND means anything at all, it must at a minimum mean a promise to extend a license to all parties seeking to implement the standard even if they choose to litigate over proffered license terms or even over patent validity before accepting a

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[68] Letter from Thomas O. Barnett, Assistant Att'y Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq. (Oct. 30, 2006), *available at* http://www.justice.gov/atr/public/busreview/219380.pdf.
[69] Shelanski, *supra* note 59, at 2.
[70] 547 U.S. at 388.
[71] Robert A. Skitol & Kenneth M. Vorrasi, *Patent Holdup in Standards Development: Life After* Rambus v. FTC, 23 ANTITRUST, Summer 2009, at 26, 30.
[72] Spansion, Inc. v. ITC, 629 F.3d 1331, 1359 (Fed. Cir. 2010), *cert. denied*, 132 S. Ct. 758 (2011).
[73] Joseph S. Miller, *Standard Setting, Patents, and Access Lock-In: Rand Licensing and the Theory of the Firm*, 40 IND. L. REV. 351, 358 (2007).

take-it-or-leave-it license agreements."[74] To increase clarity and reduce uncertainty about the content of RAND, SSOs should make this waiver express in their patent policies.

The possibility of the *Noerr-Pennington*[75]defense to antitrust enforcement against patent holdup is another reason for SSOs to adopt explicit prohibitions on demands for injunctions and exclusion orders. Under the *Noerr-Pennington* doctrine, patentees determined to extract monopolistic rather than RAND royalties may assert that they are entitled to ask for injunctions and exclusions orders.[76] They may argue that antitrust actions, which seek to prevent them from requesting these remedies in this context, violate their right to petition the government. The AAI believes that existing RAND commitments already act as a waiver of an SEP owner's right to ask for injunctions and exclusion orders. As Fiona Scott Morton stated, "when the SEP owner makes a [RAND] commitment, it is explicitly agreeing that users of its IP may compensate the owner with money."[77] Further clarification, however, can eliminate the threat of the *Noerr-Pennington* defense.

This proposed guideline would not preclude SSOs from considering narrow exceptions to the prohibition on injunctions and exclusion orders. Such an exception might, for example, apply in the event that an infringing implementer refuses to engage in license negotiations on any terms or participate in an available dispute resolution process to establish license terms.

5. Licensing Terms Run with the Patent

SSOs should stipulate that RAND and other licensing commitments such as an ex ante disclosure of most restrictive terms run with SEPs. Third party assignees of SEPs should not have the right to disclaim the original patentee's RAND commitment. These commitments represent encumbrances on the patent and are transferred with the patent. If patentees can assign their patents without ensuring that the assignee accepts the commitments made by the assignor, RAND and other ex ante commitments could be eviscerated with ease. Patentees could escape these commitments and share the windfall from holdup royalties with the assignee. By ensuring adherence to the principle that licensing terms run with the patent and requiring that SEP owners disclose such encumbrances and require any assignee to accept them, SSOs would prevent patent holders from engaging in transactions to escape ex ante licensing commitments. This requirement would be consistent with a fundamental rule in property law that an assignor cannot "transfer away a larger interest than it owns."[78]

6. Licensees Should Have Cash-Only Licensing Option on Individual SEPs

Licensees should have the option of licensing individual SEPs on a cash-only basis. This rule would prevent the owners of SEPs from demanding cross-licenses of non-SEP patents through

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[74] Skitol & Vorrasi, *supra* note 71, at 30.
[75] Eastern Railroad Presidents Conference v. Noerr Motor Freight, 365 U.S. 127 (1961); United Mine Workers v. Pennington, 381 U.S. 657 (1965).
[76] Motorola Mobility LLC and Google Inc., FTC File No. 121-0120(Jan. 3, 2013) (Dissenting Statement of Commissioner Maureen K. Ohlhausen).
[77] Scott Morton, *supra* note 17, at 8.
[78] Hovenkamp, *supra* note 27, at 13.

coercive means. Evaluating "if a complex package of cross-licenses satisfies [RAND] is difficult for a third party."[79] Without the cash-only royalty option for licensees, owners of SEPs may be able to circumvent the purpose of a RAND commitment and exercise monopoly power through the acquisition of cross-licenses on non-SEPs at below-market rates. Companies that, however, want to enter into cross-licensing agreements as part of licensing SEPs should not be prohibited from doing so.

7. Efficient, Cost-Effective Process, like "Baseball-Style" Arbitration, to Resolve Disputes Over RAND Royalty and Non-Royalty Terms

For resolving disputes over what a RAND license requires, SSOs should establish and require participation in dispute resolution processes that offer a quicker, more cost-effective alternative to litigation. The lack of precision in RAND royalty and other licensing terms is likely to give rise to disputes between licensors and licensees even when both parties act in good faith.[80] "Baseball-style" arbitration may be a suitable process for resolving these disputes.[81] Companies that cannot agree on royalties or other licensing terms should be required to submit to an alternative dispute resolution process. The decision of the arbitrator on royalty and other licensing terms would be binding on both parties. If a manufacturer refuses to enter into arbitration with a patentee, the patentee should be permitted to seek redress in court and at the ITC and obtain injunctive relief and exclusionary orders.

By issuing joint enforcement guidelines on SSO patent policies, the DOJ and FTC can reduce the threat of holdup conduct and provide greater legal certainty to SSOs. The agencies would build on and complement a distinguished record of enforcement and competition advocacy that seeks to ensure that collaborative standard setting works in the interest of consumers.

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79 Kuhn et al., *supra* note 60, at 4.
80 Skitol, *supra* note 29, at 733-34.
81 Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents* 8-9 (Stanford Pub. Law Working Paper No. 2243026, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2243026.