**PUBLIC VERSION**

**UNITED STATES INTERNATIONAL TRADE COMMISSION**
**Washington, D.C.**

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| **In the Matter of**<br><br>**CERTAIN SMART THERMOSTATS, SMART HVAC SYSTEMS, AND COMPONENTS THEREOF** | **Investigation No. 337-TA-1185** |

## COMMISSION OPINION

The Commission has determined that there has been no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 ("section 337") in this investigation with respect to U.S. Patent Nos. 8,131,497 ("the '497 patent"); 8,423,322 ("the '322 patent"); and 10,018,371 ("the '371 patent") (collectively, "the Asserted Patents"). This opinion sets forth the Commission's reasoning in support of the Commission's determination. In addition, the Commission adopts the findings in the final initial determination ("ID") issued by the presiding administrative law judge ("ALJ") that are not inconsistent with this opinion.



GOOGLE EXHIBIT 1028

## I. BACKGROUND

### A. Procedural History

The Commission instituted this investigation under section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 ("section 337") on November 27, 2019, based on a complaint filed by EcoFactor, Inc. of Palo Alto, California ("EcoFactor"). 84 FR 65421 (Nov. 27, 2019). The complaint alleges a violation of section 337 by reason of infringement of certain claims of the '497 patent, the '322 patent, the '371 patent, and U.S. Patent No. 8,498,753 ("the '753 patent"). The notice of investigation names as respondents ecobee Ltd. of Toronto, Canada and ecobee, Inc. of Toronto, Canada (collectively "ecobee"); Google LLC; Alarm.com Incorporated of Tysons, Virginia and Alarm.com Holdings, Inc. of Tysons, Virginia (collectively "Alarm.com"); Daikin Industries, Ltd. of Osaka, Japan, Daikin America, Inc. of Orangeburg, New York, and Daikin North America LLC of Houston, Texas (collectively "the Daikin Respondents"); Schneider Electric USA, Inc. of Andover, Massachusetts and Schneider Electric SE of Rueil-Malmaison, France (collectively "the Schneider Respondents"); and Vivint, Inc. of Provo, Utah ("Vivint") (collectively, "Respondents"). *Id*. The Commission's Office of Unfair Import Investigations is also named as a party in this investigation. *Id*.

The Commission subsequently terminated the investigation as to the Daikin Respondents and the Schneider Respondents based on settlement agreements. *See* Order No. 10 (May 4, 2020), *unreviewed by* Notice (Jul. 1, 2020); *see* Order No. 15 (July 14, 2020), *unreviewed by* Notice (Aug. 31, 2020).

On October 8, 2020, the ALJ issued Order No. 17, which granted in part Respondents' "Motion to Strike New Domestic Industry Products and Expert Opinions Regarding Domestic Industry." Order No. 17 (Oct. 8. 2020). Order No. 17 addressed whether the witness statement of

Complainant's expert, Mr. Miguel Gomez, exceeded his expert report in violation of Ground Rule 4.b. Order No. 17, at 3; *see* Order No. 2, at 4 (Nov. 26, 2019) (Ground Rules). The ALJ ruled that "[t]he Gomez statement may not seek to define or to analyze the alleged domestic industry or the asserted domestic industry product or products beyond the EcoFactor platform alone or in combination with the Simple Thermostat." *Id*. at 9.

The evidentiary hearing took place November 16-19, 2020. ID at 3. Complainant EcoFactor and the remaining respondents, ecobee, Google, Alarm.com, and Vivint, participated in the hearing. *Id*.

The Commission subsequently terminated the investigation as to: (1) the '753 patent in its entirety; (2) the '322 and '371 patents as to Ecobee; and (3) the '497 patent as to Alarm.com. *See* Order No. 27 (Nov. 16, 2020), *unreviewed by* Notice (Dec. 15, 2020).

On December 11, 2020, EcoFactor filed its post-hearing brief, which asserts the following claims against the following parties:

- claims 1, 2, and 5 of the '497 patent against Google, Vivint, and ecobee (Compl. Br. at 300);
- claims 1, 2, and 5 of the '322 patent against Google, Vivint, and Alarm.com (*id*.); and
- claim 9 of the '371 patent against Google.

ID at 4. Pursuant to Order No. 2 (Ground Rules), the parties also submitted a joint outline of the issues to be decided in the Final Initial Determination. *Id*. (citing Joint Outline of Issues to Be Decided in the Final Initial Determination (EDIS Doc. ID No. 728782) ("Joint Outline")).

On December 14, 2020, EcoFactor filed a "Notice of Supplemental Authority" regarding "a claim construction hearing in U.S. District Court for the Western District of Texas in Case Nos.

20-cv-00075, -00078, and -00080 [] on December 9, 2020." *Id*. (citing Notice of Supp. Auth. at 1). EcoFactor argued that "the district court claim construction disputes involved multiple disputed terms that overlap with those at issue in this Investigation, in patents that include overlapping specifications and similar priority dates to those asserted here." *Id*. at 4. On December 18, 2020, Respondents filed a response arguing, among other things, that EcoFactor's notice mentions four patents not at issue in this investigation and lacks a written order from the district court. *Id*.

On April 20, 2021, the ALJ issued the final ID finding that no violation of section 337 has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain smart thermostats, smart HVAC systems, and components thereof, with respect to asserted claims 1, 2, and 5 of the '497 patent, asserted claims 1, 2, and 5 of the '322 patent, and asserted claim 9 of the '371 patent. ID at 577.[1]

The ID finds that respondent Google's products infringe the asserted claims (*i.e*., claims 1, 2, and 5) of the '497 patent. ID at 69-110; 190-192; 196-199. The ID finds that EcoFactor has not shown that respondent ecobee's and respondent Vivint's products infringe the asserted claims of the '497 patent. *Id.* at 110-153;192-195; 199-202; 153-189; 195-196; 202-204. The ID finds that these claims have not been shown to be patent ineligible under 35 U.S.C. § 101 (*id*. at 420-426) and have not been shown to be invalid as anticipated or obvious under 35 U.S.C. §§ 102 or 103, respectively (*id*. at 430-459). The ID finds, however, that the asserted claims of the '497 patent are invalid for lack of written description and enablement under 35 U.S.C. § 112, ¶ 1. *Id*. at 517-527; 533-538. The ID does not find that the asserted claims of the '497 patent are invalid for

[1] For a detailed procedural history, *see* ID at 1-5.

indefiniteness under 35 U.S.C. § 112, ¶ 2. *Id*. at 542-543. The ID also finds that EcoFactor has not satisfied the technical or economic prongs of the domestic industry requirement with respect to the '497 patent. *Id*. at 204-225, 548-574. Accordingly, the ID finds no violation of section 337 with respect to the '497 patent. *Id*. at 577.

The ID likewise finds that respondent Google's products infringe the asserted claims (*i.e.*, claims 1, 2, and 5) of the '322 patent. *Id.* at 226-264; 327-329; 332-335. The ID finds that EcoFactor has not shown that respondent Alarm.com's and respondent Vivint's products infringe the asserted claims of the '322 patent. *Id*. at 264-304; 329-330; 335-338; 304-327; 331-332; 338-339. The ID finds that these claims have not been shown to be patent-ineligible under 35 U.S.C. § 101. *Id*. at 420-426. The ID also finds that claim 1 is invalid as anticipated under 35 U.S.C. § 102 and claims 2 and 5 are invalid as obvious under 35 U.S.C. § 103. *Id*. at 459-494. The ID further finds that the asserted claims of the '322 patent have been shown to be invalid for lack of written description and enablement under 35 U.S.C. § 112, ¶ 1. *Id*. at 527-533; 538-542. The ID does not, however, find that the asserted claims of the '322 patent are invalid for indefiniteness under 35 U.S.C. § 112, ¶ 2. *Id*. at 542-543. The ID also finds that EcoFactor has not satisfied the technical or economic prongs of the domestic industry requirement with respect to the '322 patent. *Id*. at 339-357; 543-574. Accordingly, the ID finds that there is no violation of section 337 with respect to the '322 patent. *Id*. at 577.

The ID further finds that respondent Google's products infringe the asserted claim 9 of the '371 patent. *Id.* at 358-393. Complainant EcoFactor does not allege that other respondents' products infringe claim 9 of the '371 patent. *Id*. at 358-393; Compl. Br. at 238-262. The ID finds that this claim has not been shown to be patent ineligible under 35 U.S.C. § 101 (*id*. at 427-430)

and has not been shown to be invalid under 35 U.S.C. §§ 102 or 103 (*id*. at 494-517). The ID also finds that EcoFactor has not satisfied the technical or economic prongs of the domestic industry requirement with respect to the ’371 patent. *Id*. at 393-401, 548-574. Accordingly, the ID finds that there is no violation of section 337 with respect to the ’371 patent. *Id*. at 577.

On May 3, 2021, EcoFactor filed a petition for review of various portions of the ID.[2] In particular, EcoFactor seeks review of the ID’s findings that: (1) EcoFactor has not established the economic prong of the domestic industry requirement; (2) EcoFactor domestic industry products (“DI Products”) do not practice claim 9 of the ’371 patent; (3) the preamble of claim 1 of the ’497 patent is limiting; (4) the claim term “operational efficiency” means “energy required by the HVAC system to change inside temperature by a given amount over a given time for a set of indoor and outdoor conditions”; (5) claim 1 of the ’497 patent is invalid for lack of enablement and written description; (6) EcoFactor DI Products do not practice claim 1 of the ’497 patent and ’322 patent, (7) ecobee products do not satisfy the “outside temperature measurement” limitation of the ’497 patent, and Vivint products do not satisfy the “outside temperature measurement” limitations of the ’497 patent and the ’322 patent; (8) ecobee and Vivint products do not satisfy the “rate of change” limitation of the ’497 patent; (9) Vivint products do not satisfy the limitation “wherein said one or more processors compares an inside temperature recorded inside the first structure with an inside temperature of said structure recorded at a different time to determine whether the operational efficiency of the HVAC system has decreased over time” of the ’322 patent; (10) claim 1 of the ’322 patent is invalid for lack of enablement and written description;

[2] *See* Complainant EcoFactor Inc.’s Petition for Commission Review of Initial Determination of Violation of Section 337 (May 3, 2021) (“ComplPetOpen”).

and (11) claim 1 of the ’322 patent is invalid as anticipated by United States Patent No. 5,729,474 (“Hildebrand”) (RX-0036). *See* ComplPetOpen at 3-4.

Also on May 3, 2021, respondent Google filed a contingent review for certain aspects of the ID.[3] Specifically, Google requests that, if the Commission reviews the ID’s findings as to non-infringement, invalidity, and importation, the Commission also review the following findings: (1) Google’s accused products receive outside temperate measurements as required by he asserted claims of the ’497 and ’322 patents; (2) Google’s accused products calculate and evaluate changes in the “operational efficiency” of an HVAC system, as required by the asserted claims of the ’497 and ’322 patents; (3) Google’s accused products calculate “rates of change in temperature” in an HVAC system as required by the asserted claims of the ’497 patent; (4) the claimed “thermostatic controller” of the ’371 patent means a “thermostat controller,” rather than a thermostat; (5) Google’s accused products detect a manual change by computing a difference value between an “actual setpoint” and an “automated setpoint,” as required by asserted claim 9 of the ’371 patent; (6) Google’s accused products infringe claim 9 of the ’371 patent; (7) Google indirectly infringes the ’497, ’322, and ’371 patents; (8) the asserted claims of the ’497, ’322, and ’371 patents are not patent ineligible under 35 U.S.C. § 101; (9) the Nicodem reference (U.S. Patent Publication No. 2008/0099568 to Nicodem, RX-0087) does not invalidate asserted claim 9 of the ’371 patent under 35 U.S.C. § 102, and Nicodem combined with Proliphix (Professional Series Network Thermostat Configuration Guide by Proliphix, RX-0076) and Nicodem combined with OpenJDK (source code for OpenJDK6, Build 9, RX-0082) do not invalidate the claim under

[3] Respondent Google LLC’s Petition for Review of Final Initial Determination (May 3, 2021) (“GooglePetOpen”).

35 U.S.C. § 103; (10) the Commission has jurisdiction to consider and remedy EcoFactor's claims of infringement of the '322 patent based on Google's cooling degradation system. GooglePetOpen at 4-5.

On May 4, 2021, respondent ecobee filed a contingent petition for review of certain aspect of the ID.[4, 5] Ecobee submits that, if the Commission decides to review the ID's findings as to infringement by ecobee, validity under section 112 ¶ 1, or domestic industry as to the '497 patent, the only patent asserted against ecobee, the Commission should also review the ID's conclusions on the issue of patent eligibility under § 101 with regard to the '497 patent. EcobeePetOpen at 1.

On May 11, 2021, complainant EcoFactor filed a response to Respondents' petitions for review.[6] Also on May 11, 2021, respondents ecobee, Vivint, and Google each filed their respective responses.[7] On May 12, 2021, the Commission investigative attorney in the Office of Unfair Import Investigations ("OUII") filed a response to the private parties' petitions.[8]

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[4] *See* Respondents ecobee Ltd. and ecobee, Inc.'s Contingent Petition for Review of Initial Determination of Validity of U.S. Patent No. 8,131,497 Under 35 U.S.C.§ 101 (May 4, 2021) ("ecobeePetOpen").

[5] The Commission has not determined to review the ID on any issues that would trigger the contingency in ecobee's and Google's petitions and therefore has not considered the arguments presented in those petitions.

[6] *See* Complainant EcoFactor Inc.'s Response to Respondents' Petitions for Commission Review of Final Initial Determination (May 11, 2021) ("ComplRespPet").

[7] *See* Response of Respondents ecobee Ltd. and ecobee, Inc. to Complainant EcoFactor, Inc.'s Petition for Commission Review of Initial Determination on Violation of Section 337 (May 11, 2021) ("ecobeeRespPet"); Respondent Vivint Inc.'s Response to Complainant's Petition for Review (May 11, 2021) ("VivintRespPet"); Respondent Google LLC's Response to Complainant EcoFactor, Inc.'s Petition for Review (May 11, 2021) ("GoogleRespPet").

[8] Combined Response of the Office of Unfair Import Investigations to the Private Parties' Petitions for Review of the Initial Determination (May 12, 2021) ("OUIIRespPet").

On June 8, 2021, EcoFactor filed a Notice of Supplemental Authority ("EcoFactorNSA") regarding the Federal Circuit's opinion in *Bio-Rad Laboratories, Inc. v. International Trade Commission.*, No. 20-1475, slip op. (Fed. Cir. May 28, 2021) ("*Bio-Rad Laboratories*").[9]

On June 10, 2021, Google filed a Response to Complainant's Notice of Supplemental Authority ("GoogleRespNSA").

**B. Technology at Issue and the Asserted Patents**

The technology at issue relates to systems and methods using thermostatic HVAC[10] controls that are connected to a computer network for calculating and evaluating changes in the operational efficiency of an HVAC system over time. The climate control system obtains temperature measurements from at least a first location conditioned by the climate system and a status of said HVAC system. One or more processors receives measurements of outside temperatures from at least one source other than said HVAC system and compares the temperature measurements from the first location with expected temperature measurements, where the expected temperature measurements are based at least in part upon past temperature measurements. '322 patent, Abstract; '497 patent, 1:17-19; 4:15-37; 4:38-54.

The technology also relates to systems and methods "for incorporating manual changes to the setpoint for a thermostatic controller into long-term programming of the thermostatic controller." '371 patent, Abstract. For example, a system compares the actual setpoint at a given time for the thermostatic controller to an expected setpoint for the thermostatic controller in light of scheduled programming. A determination is then made as to whether the actual

[9] *Bio-Rad Laboratories* was an appeal from the Commission's determination in *Certain Microfluidic Devices*, Inv. No. 337-TA-1068.

[10] "HVAC" means heating, ventilation, and air conditioning.

setpoint and the expected setpoint are the same or different. Furthermore, a manual change to the actual setpoint for the thermostatic controller is compared to previously recorded setpoint data for the thermostatic controller, and at least one rule is then applied for the interpretation of the manual change in light of the previously recorded setpoint data. *Id*.

The '497 patent, entitled "System and Method for Calculating the Thermal Mass of a Building," was filed on December 2, 2010, and issued on March 6, 2012. '497 patent. The '497 patent claims priority to Application Serial No. 12/211,733, filed September 16, 2008, which is now U.S. Patent No. 7,848,900, and U.S. Provisional Application No. 60/994,011, filed September 17, 2007. *Id*. The named inventors are John Douglas Steinberg and Scott Douglas Hublou. '497 patent. Claims 1, 2, and 5 are asserted as being infringed by the accused products. *See* discussion at 1.C *infra*. EcoFactor relies on claims 1, 2, and 5 of the '497 patent to satisfy the technical prong of the domestic industry requirement. ID at 69.

The '497 patent relates to the use of thermostatic HVAC controls that are connected to a computer network or, more specifically, communicating thermostats which are combined with a computer network to calculate the thermal mass of a structure. The '497 patent is directed to a system and method that improve the operational efficiency of existing HVAC technology using, among other things, an HVAC control system that receives "temperature measurements," stores temperature measurements over time in a database, calculates using a processor "rates of change of temperature" when the HVAC system is both "on" and "off," and "relate[s] [the] calculated rates of change to [the] outside temperature measurements." *See* '497 patent, at 1:17-23; 13:31-50.

The ’322 patent is entitled “System and method for evaluating changes in the efficiency of an HVAC system.” ’322 patent. The ’322 patent was filed on September 12, 2011, and issued on April 16, 2013. ’322 patent at 1. The ’322 patent claims priority to Application Serial No. 12/211,690, filed on September 16, 2008, which is now U.S. Patent No. 8,019,567, and U.S. Provisional Application No.60/994,011, filed September 17, 2007. *Id*. The named inventors are John Douglas Steinberg and Scott Douglas Hublou. ’322 patent. The ’322 patent shares the same specification as the ’497 patent. ’322 patent; ’497 patent. Claims 1, 2, and 5 are asserted as being infringed by the accused products. *See* Part 1.C *infra*. EcoFactor relies on claims 1, 2, and 5 of the ’322 patent to satisfy the technical prong of the domestic industry requirement. ID at 226.

The ’322 patent is directed to a system that evaluates the changes in the operational efficiency of existing HVAC technology using, among other things, a processor that receives outside temperature measurements from a source other than the HVAC system, stores those measurements over time in a database, compares the inside temperature measurements and outside temperature measurements over time, and then “compares an inside temperature” of the structure with “an inside temperature of [the] structure recorded at a different time to determine whether the operational efficiency of the HVAC system has decreased over time.” ’322 patent, at 1:17-23; 13:30-50.

The ’371 patent is entitled “System, method and apparatus for identifying manual inputs to and adaptive programming of a thermostat.” ’371 patent. The ’371 patent was filed on October 8, 2015, and issued on July 10, 2018. *Id*. The ’371 patent claims priority through a series of continuation applications to U.S. Provisional Application No. 61/215,999, filed on May 12, 2009.

*Id*. at 1-2. The named inventors are John Douglas Steinberg, Scott Douglas Hublou and Leo Cheung. '371 patent. *Id*. Claim 9 is asserted as being infringed by the accused products. *See* discussion at 1.C *infra*. EcoFactor relies on claim 9 of the '371 patent to satisfy the technical prong of the domestic industry requirement. ID at 358.

The '371 patent is directed at providing a solution for incorporating a user's manual changes to one or more computer-calculated setpoints. It describes calculating a temperature schedule that includes automated setpoints, detecting a manual change to an automated setpoint by comparing the automated setpoint with an actual setpoint to determine if they are the same or different, and then changing an automated setpoint based on a rule for interpreting the user's manual change. '371 patent, at 2:11-19; 9:1-29.

### C. Accused Products

The accused products in this investigation are listed in a joint filing indicating the final extent of EcoFactor's accusations in this investigation. ID at 6 (citing Joint Statement Regarding the Identification of Accused Products (EDIS Doc. No. 702683)).

Specifically, EcoFactor accuses Google's Nest Learning Thermostat Third Generation and Nest Thermostat E of infringing claims 1, 2, and 5 of the '497 patent; claims 1, 2, and 5 of the '322 patent; and claim 9 of the '371 patent. *Id*. (citing Compl. Br. at 7, 27, 154, 238; Joint Identification of Accused Products at 2).

EcoFactor accuses ecobee's ecobee3 lite and the ecobee SmartThermostat with Voice Control of infringing claims 1, 2, and 5 of the '497 patent. *Id*. (citing Compl. Br. at 8, 62; Joint Identification of Accused Products at 2).

EcoFactor further accuses Alarm.com's T2000 and T3000 Smart Thermostats of infringing claims 1, 2, and 5 of the '322 patent. *Id*. (citing Compl. Br. at 8, 184; Joint Identification of Accused Products at 2).[11]

EcoFactor also accuses Vivint's CT-100 and CT-200 smart thermostats and the Vivint SkyControl panels of infringing claims 1, 2, and 5 of the '497 patent; and claims 1, 2, and 5 of the '322 patent. *Id*. (citing Compl. Br. at 8-9, 99, 209; Joint Identification of Accused Products at 2).

On February 14, 2020, the private parties filed a joint statement identifying the following accused smart thermostats as the accused products in the investigation:

| Respondent | Accused Products | Alleged Infringement |
|---|---|---|
| Alarm.com | • ADC-T2000<br>• ADC-T3000 | • Claims 1, 2, and 5 of the '322 patent |
| Ecobee | • ecobee3 lite<br>• ecobee SmartThermostat with Voice Control | • Claims 1, 2, and 5 of the '497 patent |
| Google | • Nest Learning Thermostat (3rd Gen.)<br>• Nest Thermostat E | • Claims 1, 2, and 5 of the '497 patent<br>• Claims 1, 2, and 5 of the '322 patent<br>• Claims 9 of the '371 patent |
| Vivint | • CT-100 and CT-200 smart thermostats (also referred to as Vivint Element thermostats)<br>• SkyControl panels (also branded as Vivint Smart Hubs) | • Claims 1, 2, and 5 of the '497 patent<br>• Claims 1, 2, and 5 of the '322 patent |

[11] EcoFactor notes in its petition for review that "[f]or clarity and in consideration of Commission resources, EcoFactor is not requesting review of several issues that could be raised in this petition. These non-petitioned grounds include issues related to infringement by Respondent Alarm.com and infringement of dependent claims of the '497 and '322 patents." ComplPetOpen at 4 n 2. Any issues not raised by EcoFactor in its petition for review are abandoned. 19 C.F.R. § 210.43(b)(4).

*See* ID at 6; *see also* OUIIPostHearBr at 8 (citing EDIS Doc. ID 702683; CPreHBr. at 7-11; RPreHBr. at 14).

### D. Domestic Industry ("DI") Products

EcoFactor identifies the domestic industry products for the '497 patent, the '322 patent, and the '371 patent as follows:

> The record evidence shows that the EcoFactor Platform practices the Asserted Patents, both on its own and when used as a cloud or backend platform that provides features for any supported thermostat, including EcoFactor's Simple Thermostat.

ID at 7 (citing Compl. Br. at 6); *see also* OUIIPostHearBr at 7.[12]

## II. COMMISSION REVIEW OF THE FINAL ID

Under Commission Rule 210.43, the Commission will review an ID where it appears that –

> (1) a finding or conclusion of material fact is clearly erroneous;
>
> (2) a legal conclusion is erroneous, without governing precedent, rule or law, or constitutes an abuse of discretion; or
>
> (3) the determination is one affecting Commission policy.

19 C.F.R. § 210.43(b)(1). The Commission may review an ID on the basis of a petition for review or on its own motion. 19 C.F.R. §§ 210.43(d), 210.44 Any issue that is not raised in the petition for review is deemed to have been abandoned and may be disregarded by the

[12] On October 8, 2020, the ALJ issued Order No. 17, which granted in part Respondents' "Motion to Strike New Domestic Industry Products and Expert Opinions Regarding Domestic Industry." Order No. 17 (Oct. 8, 2020). Order No. 17 addressed whether the witness statement of Complainant's expert, Mr. Miguel Gomez, exceeded his expert report in violation of Ground Rule 4.b. Order No. 17, at 3; *see* Order No. 2 at 4 (Nov. 26, 2019). The ALJ ruled that "[t]he Gomez statement may not seek to define or to analyze the alleged domestic industry or the asserted domestic industry product or products beyond the EcoFactor platform alone or in combination with the Simple Thermostat." *Id*. at 9.

Commission, unless the Commission determines to review the issue on its own initiative. 19 C.F.R. § 210.43(b)(4). Commission review will encompass those issues for which at least one participating Commissioner votes to review. 19 C.F.R. § 210.43(d)(3).

Commission review of an initial determination is limited to the issues set forth in the notice of review and all subsidiary issues therein. *Certain Bar Clamps, Bar Clamp Pads, and Related Packaging Display and Other Materials*, Inv. No. 337-TA-429, Comm'n Op. at 3 (Jan. 4, 2001). Once the Commission determines to review an initial determination, its review is conducted under a *de novo* standard. *Certain Polyethylene Terephthalate Yarn and Products Containing Same*, Inv. No. 337-TA-457, Comm'n Op. at 9 (Jun. 18, 2002). Upon review the "Commission has 'all the powers which it would have in making the initial determination,' except where the issues are limited on notice or by rule." *Certain Flash Memory Circuits and Products Containing Same*, Inv. No. 337-TA-382, Comm'n Op. on the Issues Under Review and on Remedy, the Public Interest, and Bonding at 9-10 (Jun. 2, 1997), USITC Pub. 3046 (July 1997) (quoting *Certain Acid-Washed Denim Garments and Accessories*, Inv. No. 337-TA-324, Comm'n Op. at 5 (Nov. 1992)).

On review, "the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the administrative law judge. The Commission may also make any findings or conclusions that in its judgment are proper based on the record in the proceeding." 19 C.F.R. § 210.45(c).

## III. ANALYSIS

The Commission has determined to review the ID's findings as to three issues: (1) indirect infringement by Google; (2) the economic prong of the domestic industry requirement

under subparagraphs (A) and (B); and (3) the ID's conclusions of law and fact Nos. 14 and 22. The Commission has determined not to review the remainder of the ID's findings. Upon review, the Commission finds no violation of Section 337. The basis for the Commission's determinations on the issues under review are discussed below.

### A. Indirect Infringement of the '497, '322, and '371 Patents

The ID finds that Google induces infringement of all three asserted patents, and contributorily infringes the '497 and '371 patents.[13] ID at 401-409. With respect to inducement, the ID relies on its findings that, when the accused Google products are connected to Google's backend systems and operated in their intended manner, the accused Google products infringe the asserted claims of the '497, '322, and '371 patents. ID at 404; *see id*. at 110, 192, 199, 264, 329, 335, 393. The ID finds that, [[

]] when the accused Google products are used in their normal operation, Google induces infringement of the asserted claims. *Id*. at 405 (citing *Suprema*, 796 F.3d at 1347).

With respect to contributory infringement, the ID finds that Google contributorily infringes the asserted claims of '497 and '371 patents, but does not contributorily infringe the asserted claims of the '322 patent because the accused Google products have a substantial non-infringing use with respect to the asserted claims of the '322 patent. *Id*. (citations omitted).

[13] Because the indirect infringement arguments are the same for all of the asserted patents, we discuss them together.

The Commission has determined to review the ID's finding that Google induces infringement of all of the asserted patents and that Google contributorily infringes the '497 and'371 patents. On review, we affirm the ID's analysis and finding of indirect infringement with the additional analysis provided below, finding that Google possessed the required knowledge through the doctrine of willful blindness.

**1. Induced Infringement**

As the ID correctly acknowledges, "[i]n contrast to direct infringement, liability for inducing infringement attaches only if the defendant knew of the patent and *that the induced acts constituted patent infringement*." *Id*. at 18 (citing *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015); *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 904 (Fed. Cir. 2014) (to prove induced infringement, patentee must show that accused inducer took an affirmative act to encourage infringement with knowledge that the induced acts constitute patent infringement)) (emphasis added); *see also id.* (citing *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir.2010), *aff'd*, 564 U.S. 91 (2011)) ("Induced infringement requires a finding that the infringer possessed a specific intent to encourage another's infringement."); *Info–Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1372 (Fed. Cir. 2015) ("*Info-Hold*") ("To prove inducement of infringement, the patentee must 'show that the accused inducer took an affirmative act to encourage infringement with the knowledge that the induced acts constitute patent infringement.'") (citing *Microsoft Corp. v. DataTern, Inc*., 755 F.3d 899, 904 (Fed. Cir. 2014) (citing *Global–Tech Appliances, Inc. v. SEB S.A.*, ——U.S. ——, 131 S.Ct. 2060, 2068, 179 L.Ed.2d 1167 (2011))).

Moreover, the Federal Circuit has explained:

> A party who "actively induces infringement of a patent" under 35 U.S.C. § 271(b) is liable for patent infringement if the party knows that the induced acts constitute patent infringement. *Global–Tech Appliances, Inc. v. SEB S.A.,* 563 U.S. 754, 131 S.Ct. 2060, 2063, 179 L.Ed.2d 1167 (2011). A defendant can be found liable for induced infringement if it has actual knowledge of the infringement, or if it is willfully blind to the infringement. *Id.* The doctrine of willful blindness requires that "(1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of that fact." *Id.* at 2070.
>
> "The requisite intent to induce infringement may be inferred from all of the circumstances," and "may be established through circumstantial evidence." *Broadcom Corp. v. Qualcomm, Inc.,* 543 F.3d 683, 699 (Fed.Cir.2008).

*Suprema, Inc. v. Int'l Trade Comm'n*, 626 Fed. Appx. 273, 280 (Fed. Cir. 2015) ("*Suprema*"). *See also Info-Hold*, 783 F.3d at 1373 (vacating and remanding the district court's finding that respondent did not induce infringement and finding that issues of material fact existed as to whether respondent may have "subjectively believed there was a high probability it infringed" the relevant patent and "took deliberate actions to avoid learning whether it actually did, thus raising the issue of whether respondent willfully blinded itself to whether it acted to induce infringement after becoming aware of the existence and alleged functionality of the relevant patent."); *Global–Tech Appliances, Inc. v. SEB S.A.*, —— U.S. ——, 131 S.Ct. 2060, 2068, 179 L.Ed.2d 1167 (2011) ("The inducement knowledge requirement may be satisfied by a showing of actual knowledge or willful blindness.") (citing *Commil USA, LLC v. Cisco Sys., Inc.*, 720 F.3d 1361, 1366 (Fed.Cir.2013), *cert. granted on other grounds,* —— U.S. ——, 135 S.Ct. 752, 190 L.Ed.2d 474 (2014)); *Largan Precision Co., Ltd. v. Genius Elec. Optical Co., Ltd.*, 646 Fed. Appx. 946, 948 (Fed. Cir. 2016) (citing *Info–Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1372 (Fed. Cir. 2015) (quoting *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 904 (Fed. Cir. 2014)) ("To prove

induced infringement, a patentee must show 'the accused inducer took an affirmative act to encourage infringement with the knowledge that the induced acts constitute patent infringement.' The knowledge requirement 'may be satisfied by a showing of actual knowledge or willful blindness.'"). "Willful blindness requires the alleged inducer to (1) subjectively believe there is a high probability that a fact exists and (2) take deliberate actions to avoid learning of that fact." *Id.* (citing *Global–Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 131 S.Ct. 2060, 2070, 179 L.Ed.2d 1167 (2011)). The question of whether Google was willfully blind to its infringement of EcoFactor's patents is a question of fact. *National Presto Indus. v. West Bend Co.,* 76 F.3d 1185, 1193 (Fed. Cir. 1996) ("Whether the infringer had a reasonable belief that the accused activity did not violate the law is a question of fact, *see Datascope Corp. v. SMEC, Inc.*, 879 F.2d 820, 828 n. 8, 11 USPQ2d 1321, 1327 n. 8 (Fed.Cir.1989), as are other questions relevant to the issue of willfulness."); *see also Info-Hold*, 783 F.3d at 1373 (indicating that the issue of whether an accused infringer willfully blinded itself to whether it acted to induce infringement of the asserted patent is an issue of fact); *Bio-Rad Laboratories, Inc., v. International Trade Commission*, 2021 WL 2172956, at *11 (Fed. Cir. 2021) ("Because inducement and contributory infringement are issues of fact, *see, e.g.*, *Barry v. Medtronic, Inc*., 914 F.3d 1310, 1334 (Fed. Cir. 2019), we review the Commission's decisions for substantial evidence. *Guangdong*, 936 F.3d at 1358–59.").

In finding Google liable for induced infringement, the ID finds that Google had knowledge of the asserted patents at least at the time of the filing of the complaint, ID at 404, but did not explicitly find that Google knew that the induced acts constituted patent infringement. We find, however, that the record supports this finding.

The record shows that Google [[

]]. *See* CX-0088 (Gleeson 30(b)(6)) Dep. Tr. at 330:17-21. [[

]]; *id.* at 331:9-12 [[

]]; *id.* at 326:10-13 [[

]]

Google [[

]]. *See id.* at 327:9-328:15. In fact, [[

]]. *See id.* at 325:23-24 [[

]]; *see also* CX-101C at 1 [[

]]. Google was[[

]]. CX-0088 (Gleeson 30(b)(6)) Dep. Tr. at 328:16-19 [[

]]; CX-584C at 3 [[

]] (ellipsis in original).

Google produced numerous documents in this investigation showing that it [[

]]. CX-0674C (Gomez DWS), Q/A 557.

Google's [[

]],[14] [[

]]. *Id.* at 330:11-13. In fact, [[

]]. *Id.* at 331-335; CX-102C at 1 [[

]].

EcoFactor's expert, Mr. Gomez, concluded that the evidence uncovered in the investigation shows that Google and its employees operate with willful blindness toward the intellectual property of other companies that are in Google's space. Specifically, Mr. Gomez explained his opinion as follows:

> Q. How have Google and ecobee induced infringement?
>
> A. . . . I also note the evidence uncovered in this case that Google and its employees operate[] with willful blindness toward the intellectual property of others. At his deposition (CX-0088C at 331-335) Google Nest witness Jeff Gleeson [[

[14] Google designated Mr. Jeff Gleeson, as its Rule 30(b)(6) corporate representative [[

]] CX-0089C at 18.

]]

CX-0674 (Gomez DWS) Q/A 559. *See also* CX-0088C (Gleeson 30(b)(6)) Dep. Tr. at 331-35.

Based on this evidence, EcoFactor argued before the ALJ that Google was willfully blind to its infringement of EcoFactor's patents:

> For example, Google, including many of its witnesses deposed in this matter, [[
> ]]. CX-0674C (Gomez DWS) Q/A 556-557. [[
> ]]Google was willfully blind as to EcoFactor's patents and therefore also possesses the requisite knowledge for this reason. CX-0674C (Gomez DWS) Q/A 558.

EcoFactor Post-Hearing Br. at 60. Google, however, did not rebut EcoFactor's evidence of Google's willful blindness nor did Google address EcoFactor's argument showing Google's willful blindness to EcoFactor's patents in Google's initial and reply post-hearing briefs. Google Initial Post-Hearing Br. at 188-89; Google Reply Post-hearing Br. at 38-58. Thus, despite the evidence of record, and the argument pressed by EcoFactor, Google did not contest its willful

blindness before the ALJ. Google's failure to respond to EcoFactor's evidence and argument is an implicit admission that it possessed the specific intent to induce infringement through its willful blindness. The ALJ, however, did not address EcoFactor's willful blindness argument and evidence in the ID.

The Commission finds that the record in this investigation supports a finding that Google was willfully blind to its infringement of EcoFactor's patents. As the Federal Circuit has explained, "[t]he doctrine of willful blindness requires that '(1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of that fact.'" *Suprema*, 626 Fed. Appx. at 280 (citations omitted); *Global–Tech*, 131 S.Ct. at 2070. We find that both prongs of this test are satisfied here.

The evidence indicates that Google subjectively believed that there was a high probability that its products potentially infringe EcoFactor's U.S. patents. Specifically, Google produced numerous documents showing that [[ ]]. CX-0674C (Gomez DWS), Q/A 557. As discussed above, Google's corporate representative testified to [[ ]] Given Google's [[ ]], Google would have known there was a high probability that EcoFactor had patents covering EcoFactor's technology. The evidence shows that EcoFactor's website has information indicating that EcoFactor's products are protected by valid U.S. patents; Google [[ ]] and therefore would have had knowledge of this information. *See* EcoFactor's website at http://www.ecofactor.com/services/#eecloud ("Proactive Energy Efficiency: The EcoFactor Proactive Energy Efficiency service uses data collected from Internet-connected thermostats to

run *patented* energy algorithms, and automatically minimizes homeowner energy consumption.") (emphasis added); *see also* CX-0088 (Gleeson 30(b)(6)) Dep. Tr. at 330:17-21; *id.* at 331:9-12; *id.* at 326:10-13. Moreover, as discussed above, [[

]]. This evidence indicates that Google "must subjectively believe that there is a high probability that a fact exists." *See Suprema*, 626 Fed. Appx. at 280. In other words, the evidence shows that Google must have subjectively believed that its products would infringe. Google cannot avoid the requisite intent for induced infringement in this investigation by remaining willfully blind to the existence of patents on a competitor's product [[

]]

The record also indicates that the Google Nest team did not request or obtain opinion of counsel, through which EcoFactor's asserted patents were likely to be uncovered, as the search would likely have included an analysis of whether Google's products infringed EcoFactor patents even prior to filing of EcoFactor's complaint in this investigation, and certainly after Google learned of these patents when the complaint was filed. *See* CX-0088C (Gleeson 30(b)(6)) Dep. Tr. at 331-35, 330:11-13; CX-102C at 1; *see also* Compl. Br. at 60 (citing CX-0674C (Gomez DWS) Q/A 558); Resps. Br. at 188-189; Resps. Reply Br. at 38-58 (Google fails to rebut EcoFactor's argument that Google was willfully blind as to EcoFactor's patents and therefore also possesses the requisite knowledge for this reason, and fails to demonstrate that it requested or obtained opinion of counsel regarding EcoFactor's asserted patents). The Federal Circuit in *Suprema,* in affirming the Commission's finding of willful blindness, explained the relevance of an opinion of counsel to the willful blindness inquiry:

> The Commission also found that Suprema deliberately avoided acquiring knowledge of the '344 patent. Among other things, the Commission found that Suprema failed to obtain opinion of counsel, through which the '344 patent would have been uncovered since it was owned by Cross Match, and the search would have included an analysis of whether Suprema infringed Cross Match patents. J.A. 224. Accordingly, the Commission found that Suprema had willfully blinded itself to the existence of the '344 patent and "deliberately shielded itself from the nature of the infringing activities it actively encouraged and facilitated Mentalix to make." J.A. 225.

796 F.3d at 1343. Similarly, the Court in *Broadcom* stated:

> Because opinion-of-counsel evidence, along with other factors, may reflect whether the accused infringer "knew or should have known" that its actions would cause another to directly infringe, we hold that such evidence remains relevant to the second prong of the intent analysis. Moreover, we disagree with Qualcomm's argument and further hold that the failure to procure such an opinion may be probative of intent in this context. It would be manifestly unfair to allow opinion-of-counsel evidence to serve an exculpatory function, as was the case in *DSU* itself, *see* 471 F.3d at 1307, and yet not permit patentees to identify failures to procure such advice as circumstantial evidence of intent to infringe.

*Broadcom Corp. v. Qualcomm, Inc.*, 543 F.3d 683, 699 (Fed.Cir.2008).

Furthermore, this technology space is known to be relatively crowded. For example, the website of the American Council for an Energy-Efficient Economy (ACEEE), www.ACEEE.org, states "the landscape of core HVAC technologies is relatively crowded, with companies mostly focusing on heating-related technologies." *See* "Identifying Disruption in Advanced HVAC Technologies for Commercial Buildings" by Alex Herceg and Yara Bot in 2016 ACEEE Summer Study on Energy Efficiency in Buildings at 3-6; *see also id*. at 3-8 ("Moving on from core HVAC equipment to companies developing sensors and controls to enable better operation of HVAC, we find a crowded landscape.") Google's practice of [[

]] within a crowded competitive landscape

supports the conclusion that Google willfully blinded itself as to competitors' patents, including EcoFactor's asserted patents.

In addition, relying on the unrebutted testimony of EcoFactor's expert, Mr. Gomez, the ID finds that "Google had knowledge of the asserted patents at least as of the filing of this investigation." ID at 404 (citing CX-0674C (Gomez DWS) at Q/A 556-57). Notwithstanding [[ ]] and the factual basis for EcoFactor's allegations that Google's accused products infringe those patents as set forth in detail in EcoFactor's complaint, Google continued to import, promote, and sell its infringing products in the United States. CX-0674C (Gomez DWS) at Q/A 559 ("Further, Google [ ] knew of the asserted patents and EcoFactor's infringement contentions since at least the outset of this Investigation, but nonetheless continue to promote the accused products and infringing features to potential customers, and instruct existing users on how to perform the infringing features."). ID at 5 (citing Complaint, ¶¶ 17-18; CX-0815C (Google Importation and Inventory Stipulation) at 2).

Accordingly, we find that Google possessed the requisite knowledge that the induced acts constitute patent infringement required for finding induced infringement. *See Broadcom Corp. v. Qualcomm, Inc.*, 543 F.3d 683, 699 (Fed.Cir.2008) ("The requisite intent to induce infringement may be inferred from all of the circumstances," and "may be established through circumstantial evidence."); *National Presto Indus. v. West Bend Co.*, 76 F.3d 1185, 1193 (Fed. Cir. 1996) (the question of whether a party was willfully blind to its infringement of the asserted patents is a question of fact); *see also Info-Hold*, 783 F.3d at 1373 (indicating that the issue of whether an

accused infringer willfully blinded itself to whether it acted to induce infringement of the asserted patent is an issue of fact).

**2. Contributory Infringement**

The ID considers the parties' contentions on the issue of contributory infringement and finds that Google fails to rebut EcoFactor's argument that Google contributorily infringes the asserted claims of the '497 and '371 patents. *See* ID at 406-409; *see also id*. at 18-19. The ID, based on the record, finds that Google contributorily infringes the '497 and '371 patents. *Id*. at 408-409; *see also id*. at 69-110; 190-192; 196-199.

As with its findings on induced infringement, the ID lacks an explicit finding that Google possessed the requisite knowledge required to establish contributory infringement with respect to the '497 and '371 patents. *See Arris* at 1376 (". . . the supplier knew its product was especially made or 'especially adapted for use in an infringement' of the patent"). We note that EcoFactor argued before the ALJ that, [[

]] Google was willfully blind as to EcoFactor's patents and therefore also possesses the requisite knowledge for this reason." Compl. Br. at 183 (citing CX- 0674C (Gomez DWS) Q/A 558[15]). As noted above, Google did not rebut EcoFactor's evidence or argument nor did it respond to EcoFactor's showing of willful blindness in its initial and reply post-hearing briefs.

Although EcoFactor presented Mr. Gomez's testimony with respect to its inducement allegations (*see* Compl. Br. at 183), we find that Mr. Gomez's testimony concerning willful

[15] Mr. Gomez's answer to question 559 directly addresses the issue of willful blindness.

blindness constitutes substantial evidence to support a finding of the requisite knowledge with respect to contributory infringement as well. The Federal Circuit has held that:

> *Commil*, in reaffirming *Global–Tech*, also necessarily reaffirmed that willful blindness can satisfy the knowledge requirement for active inducement under § 271(b) (and for contributory infringement under § 271(c)), even in the absence of actual knowledge. *Global–Tech*, 131 S.Ct. at 2070. *Global–Tech* also held that knowledge of infringement can be inferred from circumstantial evidence. *Id*. at 2071–72.

*Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 824 F.3d 1344, 1347 (Fed. Cir. 2016). In *Global-Tech*, the Supreme Court held that:

> In *Aro II*, a majority held that a violator of § 271(c) must know "that the combination for which his component was especially designed was both patented and infringing," 377 U.S., at 488, 84 S.Ct. 1526, and as we explain below, that conclusion compels this same knowledge for liability under § 271(b).

*Global–Tech Appliances, Inc. v. SEB S.A.*, 131 S.Ct. 2060, 2066 (2011); *see id.* at 2068-2069.

We thus find that Google possessed the requisite knowledge for finding contributory infringement of the '497 and '371 patents.[16]

**B. Economic Prong of the Domestic Industry Requirement**

Before the ALJ, EcoFactor asserted that it satisfies the economic prong of the DI requirement under section 337(a)(3)(A) and (B). Compl. Br. at 281-295. The ID finds that EcoFactor failed to satisfy the economic prong of under subparagraphs (A) or (B). ID at 574.

In its petition for review, EcoFactor argued that the ID errs in requiring it to allocate research and development investments to the specific patented features, rather than to the DI

[16] As noted above, the ID does not find that Google contributorily infringed the '322 patent.

product itself. ComplPetOpen at 15-16 (citing ID at 560-561). We find that EcoFactor misinterprets the ID's finding.

The subject portion of the ID at issue states as follows:

> Moreover, the administrative law judge finds that there was a need for EcoFactor to allocate EcoFactor's costs because EcoFactor's technical DI evidence show that not all services within EcoFactor's platform relate to all patents-in-suit. For example, EcoFactor's technical DI evidence as to the '322 patent include the HVAC Performance Monitoring service. *See* RX-0156C (Henze RWS) at Q/A 228; CX-0674C (Gomez DWS) at Q/A 609, 615. As such, any investments unrelated to the HVAC Performance Monitoring service did not exploit the '322 patent, and any historical activities and investments related to the HVAC Performance Monitoring Service did not exploit the '371 patent. *See* RX-0158C (Mulhern RWS) at Q/A 101; CX-0674C (Gomez DWS) at Q/A 650-62. Furthermore, EcoFactor did not sell the HVAC Performance Monitoring module before 2017, and has offered the EcoFactor Platform services separately. *See* RX-0192C; RX-0158C (Mulhern RWS) at Q/A 103.

ID at 560-561.

This finding reflects an argument Respondents made in their pre-hearing brief in response to EcoFactor's assertion that it satisfies the economic prong under section 337(a)(3)(C) (19 U.S.C. § 1337(a)(3)(C)). *See* CPreHBr at 182 ("EcoFactor's substantial expenditures allocated to the research and development efforts above demonstrate the existence of a domestic industry under Section 337(a)(3)(A)-(B), as well as under Section 337(a)(3)(C). . . . Specifically, Mr. Lasinski will testify that based on his understanding from Mr. Gomez that the EcoFactor Platform embodies each of the Asserted Patents and that the Asserted Patents are essential to the commercial success of the EcoFactor Platform, all of the expenses allocated by EcoFactor to the research, development, and engineering of the EcoFactor Platform are necessarily investments in the exploitation of the Asserted Patents.") (citations omitted).

Specifically, Respondents argued that:

> First, Mr. Lasinski fails to separate investments and activities relating to the Simple Thermostat from unrelated investments and activities. Mulhern Q/A 15. Mr. Lasinski, assumes, without support, that 100 percent of EcoFactor's activities are all relevant to the patents-in-suit, and that thermostats other than the Simple Thermostat practice the patents-in-suit. Lasinski Q/A 26-27; Mulhern Q/A 92. With respect to the alleged DI product, claiming investments in 2010 is plainly overbroad. Development of the Simple Thermostat did not even begin until 2015, and the first sale was not made until 2017. RDX-0004C-005 (Timeline of EcoFactor Events), RX- 0008C, at 121. RX-0529C (Ex. 23 to S. Habib Dep. - Understanding the EF-NVE Contract). Even after 2017, EcoFactor has continued to support an older generation thermostat, the CT218, and has entered into contracts or submitted proposals specifying the use of EcoFactor platform services with third-party thermostats. Reliance on 100 percent of all research and development expenditures also is overbroad. Complainant engaged in numerous activities unrelated to the DI product or to the patents-in-suit, such as the Flat Bill program and the "Un-Thermostat."
>
> Second, Mr. Lasinski fails to analyze DI on a patent-by-patent basis. Mulhern Q/A 15, 33. Investments that do not relate to the DI product are, by definition, not exploitations of the patents-in-suit, and may not be considered under section 337(a)(3)(C). *See InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 707 F.3d 1295, 1297-98 (Fed. Cir. 2013). Complainant's technical DI contentions show that not all services within EcoFactor's platform relate to all patents-in-suit. For example, the '322 Patent implicates only the HVAC Performance Monitoring service in conjunction with the Simple Thermostat or its white-label version. Henze Q/A 228.
>
> The EcoFactor platform is not sold as a single product. Customers purchase only a subset of the EcoFactor platform services, for use with the Simple Thermostat or different thermostats sold by third parties. RX-0196C; Lasinski Q/A 56-57. Complainant did not sell the HVAC Performance Monitoring module before 2017, and has offered the EcoFactor platform services separately. RX-0192C; RDX-0004C-009; Mulhern Q/A 103.

RPreHBr. at 42-44.

Subsequently, EcoFactor chose not to pursue the domestic industry argument under subparagraph (C). *See* Compl. Br. at 281-296; ID at 545 n.17; *see also* OUIIRespPet at 61 ("The parties' arguments with respect to allocation of investments of specific patented features on a patent-by-patent basis were only made in the context of domestic industry under subparagraph (C), which was subsequently dropped by EcoFactor.")

The Commission has determined that the ID's finding at pages 560-61 is not necessary to support the ID's analysis and findings that EcoFactor failed to show domestic industry under subparagraphs (A) and (B). Unlike subparagraph (C), which requires that the investments in the recited activities must be "in the exploitation" of the patent, under subparagraphs (A) and (B), there is no requirement that the recited investments and activities exploit the patent. Accordingly, on review, we strike the subject paragraph (*see* ID at 560-561). *See also* OUIIRespPet at 61-62.

### C. Correcting Clerical Errors

The ID finds that the respondents have shown by clear and convincing evidence that the asserted claims of the '497 and '322 patents are invalid as lacking sufficient written description and as lacking enablement under 35 U.S.C. § 112, ¶ 1. ID at 517, 527, 533, 538, 542; *see* 35 U.S.C. § 112, ¶ 1. The ID also finds that the respondents have not shown that the asserted claims are indefinite under 35 U.S.C. § 112, ¶ 2. *Id.* at 543.

However, in its conclusions of fact and law, the ID mistakenly states that the ALJ found the asserted claims of the '497 and '322 patents invalid under both 35 U.S.C. § 112, ¶¶ 1 and 2. ID at 576 (conclusions of fact and law 14 and 22). We correct these clerical errors by modifying each of the ID's conclusions of fact and law Nos. 14 and 22 to read as follows: "Respondents have shown, through clear and convincing evidence, that the asserted claims are invalid under 35

U.S.C. § 112, ¶ 1, and have not shown, through clear and convincing evidence, that the asserted claims are invalid under 35 U.S.C. § 112, ¶ 2." ID at 576.

## IV. CONCLUSION

For the reasons set forth herein, the Commission reviews the ID in part and affirms with modification the ID's finding of no violation of section 337. Specifically, the Commission has determined: (1) to review the ID's findings regarding induced and contributory infringement, and on review to additionally provide the requisite findings that Google was willfully blind with respect to the asserted patents and thus possessed the requisite knowledge that its products infringe those patents (*see* ID at 404-405, 408-409); (2) to review the language supporting the ID's determination that EcoFactor failed to satisfy the economic prong of the domestic industry requirement under subparagraphs (A) and (B), and on review to strike the last paragraph on page 560 (*see* ID at 560-561); and (3) to review the ID's conclusions of fact and law Nos. 14 and 22 on page 576, and on review to correct the specified clerical errors and to modify these conclusions to conform to the ID's findings on these issues.

By order of the Commission.

Lisa R. Barton
Secretary to the Commission

Issued: May 24, 2023

**PUBLIC CERTIFICATE OF SERVICE**

I, Lisa R. Barton, hereby certify that the attached **COMMISSION OPINION** has been served via EDIS upon the Commission Investigative Attorney, **Paul Gennari, Esq**., and the following parties as indicated, on **May 24, 2023.**

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