UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

Investigation No. 337-TA-1292

CERTAIN REPLACEMENT AUTOMOTIVE LAMPS (II)

COMMISSION OPINION

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I. INTRODUCTION

On August 24, 2022, the Commission determined to review in its entirety an interim initial determination ("IID") issued on July 1, 2022, finding that complainants Hyundai Motor Company of Seoul, Republic of Korea ("HMC") and Hyundai Motor America, Inc. of Fountain Valley, California ("HMA") (collectively, "Hyundai") have satisfied the economic prong of the domestic industry requirement. Comm'n Notice (Aug. 24, 2022) ("IID Review Notice"). On May 11, 2023, the Commission determined to review in its entirety a final initial determination ("FID") issued by the presiding chief administrative law judge ("CALJ") on January 24, 2023. 88 Fed. Reg. 31522-24 (May 17, 2023) ("FID Review Notice"). On review, the Commission has determined that the economic prong of the domestic industry requirement is not satisfied for any of the asserted patents, and therefore there has been no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337 ("section 337"), with respect to any asserted patent. This opinion sets forth the Commission's reasoning in support of that determination.²

II. BACKGROUND

A. Procedural History

On January 24, 2022, the Commission instituted this investigation under section 337 based on a complaint filed by complainant Hyundai. *See* 87 Fed. Reg. 3583-84 (Jan. 24, 2022).

¹ The IID was issued pursuant to a Commission pilot program that allows an ALJ to develop a full evidentiary record on a potentially case-dispositive or significant issue, and to resolve that issue in an IID, subject to review by the Commission on an expedited basis. *See* https://www.usitc.gov/press_room/ featured_news/337pilotprogram.htm (last accessed Feb. 15, 2024).

² Commissioner Schmidtlein agrees that Hyundai has failed to establish the economic prong of the domestic industry requirement for any of the asserted patents. She therefore agrees that there has been no violation of section 337 in this investigation. However, she does not join the majority's opinion because in her view it goes beyond what is necessary to dispose of the investigation. She explains her views in the attached concurring opinion.

The complaint, as supplemented and amended, alleges a violation of section 337 in the importation into the United States, sale for importation, or sale after importation into the United States of certain replacement automotive lamps by reason of infringement of U.S. Design Patent Nos. D617,478 ("the '478 patent"); D618,835 ("the '8835 patent"); D618,836 ("the '836 patent"); D631,583 ("the '583 patent"); D637,319 ("the '319 patent"); D640,812 ("the '812 patent"); D655,835 ("the '5835 patent"); D664,690 ("the '690 patent"); D709,217 ("the '217 patent"); D736,436 ("the '436 patent"); D738,003 ("the '003 patent"); D739,057 ("the '057 patent"); D739,574 ("the '574 patent"); D740,980 ("the '980 patent"); D759,864 ("the '864 patent"); D759,865 ("the '865 patent"); D771,292 ("the '292 patent"); D780,351 ("the '351 patent"); D818,163 ("the '163 patent"); D829,947 ("the '947 patent"); D834,225 ("the '225 patent") (collectively, "the Asserted Patents"). The complaint further alleges that a domestic industry exists. *Id*.

The notice of investigation names four respondents: 1) TYC Brother Industrial Co., Ltd. of Tainan, Taiwan; 2) Genera Corporation (dba. TYC Genera) of Brea, California; 3) LKQ Corporation of Chicago, Illinois; and 4) Keystone Automotive Industries, Inc. of Exeter, Pennsylvania (collectively, "Respondents"). *Id.* at 3583. The Office of Unfair Import Investigations is not named as a party. *Id*.

On February 7, 2022, the CALJ ordered an evidentiary hearing for both Inv. Nos. 337-TA-1291 and 337-TA-1292³ on the economic prong pursuant to the Commission's pilot program

³ Investigation No. 337-TA-1291, *Certain Replacement Automotive Lamps (I)*, concerns the same respondents and their replacement automotive lamps, although it involves different complainants (Kia Corporation and Kia America, Inc.) and different asserted design patents. As of September 30, 2023 the Kia Corporation's largest shareholder is Hyundai Motor Company. https://worldwide.kia.com/int/company/ir/financial/audit/download/ad8516b2-a636-4f56-b7c4-fdad84b5ef28/ffd25b00-c7a1-42b4-9048-5c2326b6377d, at 11 (Last accessed Feb. 12, 2024)

for IIDs. Order No. 6 (Feb. 7, 2022). The combined evidentiary hearing was held on April 20, 2022. On July 1, 2022, the CALJ issued an IID finding that Hyundai has satisfied the economic prong of the domestic industry requirement with respect to all 21 of the Asserted Patents. On August 24, 2022, the Commission determined to review the IID and requested briefing from the parties on certain issues.⁴ IID Review Notice. On September 9, 2022, Hyundai⁵ and Respondents⁶ filed their respective initial written responses. On September 16, 2022, Hyundai⁷ and Respondents⁸ each filed a reply submission.

From August 18 through August 22, 2022, the CALJ held a final evidentiary hearing on the remaining issues of infringement, invalidity, the technical prong of the domestic industry requirement, and remedy. After the hearing, the parties filed initial and responsive post-hearing briefs.⁹

⁴ The Commission similarly determined to review the IID in the 1291 investigation. 88 Fed. Reg. 31520-22 (May 17, 2023).

⁵ Complainants' Submissions to the Commission on Issues Under Review (Sept. 9, 2022) ("Hyundai IID IR").

⁶ Respondents' Initial Written Submission in Response to the Commission's Notice of Review (Sept. 9, 2022) ("Respondents IID IR").

⁷ Complainants' Reply Submission to the Commission on Issues Under Review (Sept. 16, 2022) ("Hyundai IID Reply").

⁸ Respondents' Reply Submission in Response to the Commission's Notice of Review (Sept. 16, 2022) ("Respondents IID Reply").

⁹ Complainants' Initial Post-Hearing Brief (Sept. 2, 2022) ("CIB/FID"); Respondents' Final Evidentiary Hearing Initial Post-Hearing Brief (Sept. 2, 2022) ("RIB/FID"); Complainants' Post-Hearing Responsive Brief (Sept. 13, 2022) ("CRB/FID"); Respondents' Final Evidentiary Hearing Responsive Post-Hearing Brief (Sept. 13, 2022) ("RRB/FID").

On October 11, 2022, the CALJ requested additional post-hearing briefing on two technical prong issues: (1) whether Hyundai's alleged "mirror image" products practiced the Asserted Patents and (2) whether Hyundai proved that its alleged representative domestic industry products are indeed representative of other products. *See* Order No. 29 (Oct. 11, 2022). The parties submitted initial and reply supplemental briefs addressing those issues, as well as how rulings on those issues would impact the alleged economic prong investment values. ¹¹

On January 24, 2023, the CALJ issued the FID finding a violation of section 337 by Respondents with respect to each of the Asserted Patents. In particular, the FID finds that each of the Asserted Patents is infringed and is not invalid. Regarding the domestic industry requirement, the FID finds the technical prong satisfied for each of the Asserted Patents. In light of the "mirror image" issue, the FID finds that each Asserted Patent is not limited to only the particular side depicted in the claim. The FID also finds that Hyundai failed to establish that any alleged representative domestic industry product is representative of any other product, and thus failed to establish the technical prong with respect to many products based on purported representativeness. Concerning the economic prong of the domestic industry requirement, the FID reduced Hyundai's alleged investments due to Hyundai's failure to establish that certain of its alleged domestic industry products are representative of other alleged domestic industry

¹⁰ The "mirror image" issue refers to whether a design patent claim covers a "mirror image," *i.e.*, a design that is not identical to the claim but rather is a "mirror image" of the claim. This issue impacts, for example, whether a claim for a driver's side headlamp design covers a passenger's side headlamp.

¹¹ Complainants' Supplemental Post-Hearing Brief in Accordance with Order No. 29 (Oct. 17, 2022) ("CSB"); Respondents' Reply to Complainants' Supplemental Post-Hearing Brief in Accordance with Order No. 29 (Oct. 24, 2022).

products but affirmed the IID's finding that the economic prong was satisfied based on the representative products.

The FID also contains the CALJ's recommended determination ("RD") on remedy and bonding. The RD recommends that, if the Commission finds a violation, it should issue a limited exclusion order but not issue cease and desist orders against any of Respondents.

On February 6, 2023, Respondents filed a petition for review challenging the FID's findings on the economic prong of the domestic industry requirement, infringement, and invalidity. Also on February 6, 2023, Hyundai filed a petition for review challenging the FID's findings of noninfringement and contingently petitioning regarding the RD's recommendations. On February 14, 2023, Hyundai 14 and Respondents 15 filed responses to each other's petitions.

On February 23, 2023, the Commission received public interest submissions pursuant to Commission Rule 210.50(a)(4) from the LKQ Respondents and the TYC Respondents. ¹⁶ See 19 C.F.R. § 210.50(a)(4). On February 22 and 23, 2023, the Commission received twelve

¹² Respondents' Petition for Review of the Initial Determination on Violation of Section 337 (Feb. 6, 2023) ("Resp. Pet.").

¹³ Complainants' Petition for Review of the Initial Determination on Violation of Section 337 and Recommended Determination on Remedy and Bond (Feb. 6, 2023) ("Hyundai Pet.").

¹⁴ Complainants' Response to Respondents' Petition for Review of the Initial Determination on Violation of Section 337 (Feb. 14, 2023) ("Hyundai Resp.").

¹⁵ Respondents' Response to Complainants' Petition for Review of the Initial Determination on Violation of Section 337 and Recommended Determination on Remedy and Bond (Feb. 14, 2023) ("Resp. Resp").

¹⁶ Respondents LKQ Corporation's and Keystone Automotive Industries, Inc.'s Public Interest Statement (Feb. 23, 2023); Respondents TYC Brother Industrial Co., Ltd. and Genera Corporation's Public Interest Statement Pursuant to Commission Rule 210.50(A)(4)(i) (Feb. 23, 2023).

responses¹⁷ to the Commission notice seeking public interest submission. 88 Fed. Reg. 7759-7760 (Feb. 6, 2023).

On May 11, 2023, the Commission determined to review the FID in its entirety. FID Review Notice at 31522-23. The Commission asked the parties to address four questions, which related to infringement, the technical prong of the domestic industry requirement, and the economic prong of the domestic industry requirement, and requested briefing from the parties, interested government agencies, and the public concerning remedy, bonding, and the public interest. *Id*.

On May 25, 2023, Hyundai¹⁸ and Respondents¹⁹ filed their initial written responses to the Commission's request for briefing. On June 1, 2023, Hyundai²⁰ and Respondents²¹ filed their reply submissions.

¹⁷ Specifically, the Commission received submissions from: (1) the Alliance for Automotive Innovation (EDIS Doc. No. 790866); (2) the American Property Casualty Insurance Association (EDIS Doc. No. 791491); (3) the Automotive Body Parts Association (EDIS Doc. No. 791117); (4) Capstone Auto Body Parts (EDIS Doc. No. 790855); (5) the Certified Automotive Parts Association (EDIS Doc. No. 791063); (6) the Consumer Access to Repair (CAR) Coalition (EDIS Doc. No. 790955); (7) Continental Auto Parts (EDIS Doc. No. 790433); (8) KSI Trading Corporation (EDIS Doc. No. 791078); (9) National Auto Parts USA Inc. (EDIS Doc. No. 790992); (10) the National Automobile Dealers Association (EDIS Doc. No. 790988); (11) the Repair Association (formally known as the Digital Right to Repair Coalition) (EDIS Doc. No. 791015); and (12) Simco Auto Body Parts (EDIS Doc. No. 790862).

¹⁸ Complainants' Initial Written Submission in Response to the Commission's Notice of Review of Final Initial Determination (May 25, 2023) ("Hyundai IR").

¹⁹ Respondents' Initial Written Submission in Response to the Commission's Notice of Review (May 25, 2023) ("Respondents IR").

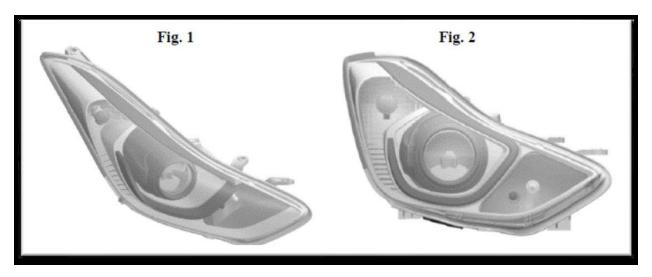
²⁰ Complainants' Reply Submission to the Commission on Issues Under Review (June 1, 2023) ("Hyundai Reply").

²¹ Respondents' Reply Submission in Response to the Commission's Notice of Review (June 1, 2023) ("Respondents Reply").

On June 15, 2023, Respondents filed a motion to strike a declaration filed with the Hyundai Reply. ²² On June 26, 2023, Hyundai filed an opposition to the motion to strike. ²³

B. The Asserted Design Patents

Hyundai asserts 21 design patents. FID at 7-9. The claim of each Asserted Patent is directed to the ornamental design for automotive headlamp or taillamp assemblies. *Id.* The '003 patent is directed to specific ornamental design features for a vehicle headlamp, and its Figures 1 and 2, reproduced below, are exemplary of the claimed designs:



CIB/ IID²⁴ at 4 (citing Tr. (Bazelon) at 36:3-5; CDX-0002C at 18; Compl. ¶ 72; Compl. Ex. 1.11).

²² Respondents' Motion to Strike the Declaration of Brett Helmreich and Related Portions of Complainants' Reply Submission to the Commission on Issues Under Review or For Leave to File a Sur-Reply to Such Submission (June 15, 2023) ("Motion to Strike").

²³ Complainants Hyundai Motor Company and Hyundai Motor America, Inc.'s Opposition to Respondents' Motion to Strike the Declaration of Brett Helmreich and Related Portions of Complainants' Reply Submission (June 26, 2023).

²⁴ Corrected Complainants' Post-Hearing Brief on the Economic Prong of the Domestic Industry (May 9, 2022) ("CIB/IID").

C. The Accused Products

The accused articles are Respondents' replacement automotive headlamps and taillamps for certain Hyundai-branded automobiles. *Id.* at 9-10. The FID notes that the parties stipulated that certain accused products were representative of other accused products but the parties' "stipulation regarding representative accused products did not, however, associate each accused product with a representative product; some accused products were not addressed." *Id.*

D. The Domestic Industry Products

To satisfy the technical prong of the domestic industry requirement, Hyundai relied on certain automotive headlamps and taillamps allegedly covered by the Asserted Patents, including genuine replacement automotive headlamps and taillamps for certain Hyundai-branded automobiles and related products, such as genuine new headlamps and taillamps. FID at 10-12.

The table below includes the specific part numbers for the domestic industry product for each Asserted Patent. CIB/FID at 22-25; FID at 10-11. Because each Asserted Patent protects a different design, there is no overlap between any Asserted Patents, as shown below (representative part for each cell in bold):

Asserted Patent	Hyundai Model	Model Year	Part Description	Exemplary Hyundai's Genuine Parts
The '478 Patent	Sonata	Sonata 2011-14 Head		921013Q000 921013Q100 921023Q000 921023Q100
The '8835 Patent	Sonata	2011-14	Taillamp	924023Q000 924013Q000
The '836 Patent	Santa Fe	2010-12	Taillamp	924020W500 924010W500
The '583 Patent	Tucson	2010-13	Headlamp	921022S050 921012S050
The '319 Patent	Sonata	2011-15 Headlamp		921024R050 921014R050

Asserted Patent	Hyundai Model	Model Year	Part Description	Exemplary Hyundai's Genuine Parts
The '812 Patent	Elantra	2011-13	Headlamp	921023Y000 921013Y000
The '5835 Patent	Accent	2012-14	Headlamp	921021R010 921011R010
The '690 Patent	Elantra	2012-16	Headlamp	92101A5050 92102A5050
The '217 Patent	Santa Fe	2013-17	Headlamp	921014Z000 921014Z010 921014Z100 921024Z000 921024Z010 921024Z100
The '436 Patent	Sonata	2015-17	Taillamp	92402C2000 92401C2000
The '003 Patent	Elantra	2014-16	Headlamp	921013Y510 921023Y510
The '057 Patent	Elantra	2014-16	Headlamp	921013X280 921023X280 921013Y500 921023Y500
The '574 Patent	Elantra	2014-16	Taillamp	924023X230 924013X230 924023Y500 924013Y500
The '980 Patent	Sonata	2015-17	Headlamp	92101C2000 92101C2050 92102C2000 92102C2050
The '864 Patent	Tucson	2016-18	Taillamp	92404D3010 92403D3010
The '865 Patent	Tucson	2016-18	Headlamp	92102D3050 92101D3050
The '292 Patent	Elantra	2017-18	Headlamp	92102F3000 92102F3010 92101F3000 92101F3010
The '351 Patent	Elantra	2017-18	Taillamp	92401F2020 92402F2020
The '163 Patent	Accent	2018-21	Headlamp	92102J0020 92101J0020
The '947 Patent	Sonata	2017-19	Headlamp	92102C2500 92101C2500

Asserted Patent	Hyundai Model	Model Year	Part Description	Exemplary Hyundai's Genuine Parts
The '225 Patent	Kona	2018-20	Headlamp	92102J9020 92101J9020

FID at 10-11 (citing CIB/FID at 22-25). For each design patent, Hyundai contended that one Hyundai part practices the design patent (in bold above), and that part is representative of several other parts that also practice the design. CIB/FID at 22-25. The FID, however, finds that Hyundai failed to show that any part is representative of any other part, and thus finds that Hyundai failed to establish the technical prong of the domestic industry requirement with respect to the so-called represented products. FID at 110-116.

III. COMMISSION REVIEW OF THE FID

When the Commission reviews an initial determination, in whole or in part, it reviews the determination *de novo*. *Certain Soft-Edged Trampolines and Components Thereof*, Inv. No. 337-TA-908, Comm'n Op. at 4 (May 1, 2015). 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 & Prods. Containing Same*, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 9–10 (July 1997) (quoting *Certain Acid-Washed Denim Garments & Accessories*, Inv. No. 337-TA-324, Comm'n Op. at 5 (Nov. 1992)). With respect to the issues under 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." 19 C.F.R. § 210.45(c). The Commission also "may take no position on specific issues or portions of the initial determination," and "may make any finding or conclusions that in its judgment are proper based on the record in the proceeding." *Id.*; *see also Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984).

IV. ANALYSIS

The Commission finds no violation of section 337 based on complainant Hyundai's failure to satisfy the economic prong of the domestic industry requirement. The Commission takes no position on infringement, validity, or the technical prong of the domestic industry requirement. To the extent the FID's other findings, conclusions, and supporting analysis are not inconsistent with the Commission's opinion herein, the Commission affirms and adopts those findings. The Commission's findings and analysis are set out below.

A. Economic Prong of the Domestic Industry Requirement

When a section 337 investigation is based on allegations of patent infringement, the complainant must show that "an industry in the United States, relating to the articles protected by the patent . . . exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). "[A]n industry is considered to exist if there is in the United States, with respect to the articles protected by the patent . . . concerned –

- (A) significant investment in plant and equipment ["prong A"];
- (B) significant employment of labor or capital ["prong B"]; or
- (C) substantial investment in its exploitation, including engineering, research and development, or licensing."

19 U.S.C. § 1337(a)(3). The "industry in the United States" requirement, also called the domestic industry requirement, is commonly described as having two prongs: "the 'economic prong,' which requires that there be an industry in the United States, and the 'technical prong,' which requires that the industry relate to articles protected by the patent." *InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 707 F.3d 1295, 1298 (Fed. Cir. 2013). A complainant has the burden to show by a preponderance of the evidence every element of a violation of

section 337,²⁵ including that the economic prong of the domestic industry requirement is satisfied. *Certain Electronic Candle Products and Components Thereof*, Inv. No. 337-TA-1195, Comm'n Op. at 11 (Oct. 4, 2022) ("*Electronic Candle Products*").

Section 337 requires that a complainant prove that a domestic industry exists for each patent asserted in an investigation based on patent infringement. Where one domestic industry product practices only one patent, without overlapping protection of other patents, a complainant must show significant or substantial investments in each product separately. See John Mezzalingua Assocs., Inc. v. U.S. Int'l Trade Comm'n, 660 F.3d 1322, 1330-31 (Fed. Cir. 2011) (complainant erred in arguing combined investments for multiple patents and failing to allocate for single design patent); Certain Electronic Imaging Devices ("Electronic Imaging Devices"), Inv. No. 337-TA-850, Comm'n Op. at 89 (Apr. 21, 2014) (where first product practiced one patent and second product practiced a second patent, the complainant was required to show significant investment in each product separately); Certain Electronic Stud Finders, Metal Detectors and Electrical Scanners, Inv. No. 337-TA-1221, Comm'n Op. at 48-50 (Mar. 14, 2022) ("Electronic Stud Finders") (requiring that a domestic industry be shown for each asserted patent); Certain Audio Digital-to-Analog Converters and Products Containing Same ("Audio Digital-to-Analog Converters"), Inv. No. 337-TA-499, ID at 113 (Nov. 15, 2004), unreviewed in relevant part, Comm'n Op. (Mar. 3, 2005) (complainant must demonstrate the existence of two domestic industries where the articles that practice the two asserted patents do not overlap). In

²⁵ See, e.g., Certain Protective Cases and Components Thereof, Inv. No. 337-TA-780, Initial Determination at 3, Order No. 29 (Mar. 15, 2012), unreviewed by Comm'n Notice (Apr. 11, 2012) ("a complainant has the burden of proving a violation of section 337."); see also 5 U.S.C. § 556(d) (stating that "the proponent of a rule or order has the burden of proof"); 19 C.F.R. § 210.37 ("The proponent of any factual proposition shall be required to sustain the burden of proof with respect thereto.")

short, the language of Section 337 explicitly requires that the domestic industry "relat[e] to the articles protected by the patent." 19 U.S.C. § 1337(a)(3). By contrast, nothing in the statute suggests that a complainant can pad its domestic industry numbers in articles protected by one patent with investments in other articles protected by an entirely different patent.

1. The IID Proceedings

a. Economic Prong Arguments Prior to the IID

In its initial economic prong briefing, Hyundai argued that the economic prong was satisfied under prongs (A) and (B) for all of the Asserted Patents. CIB/IID at 21-59. Hyundai relied on investments made by four entities: (1) HMA²⁶; (2) Hyundai Motor Manufacturing Alabama ("HMMA")²⁷; (3) SL Alabama²⁸; and (4) Mobis Parts America, Inc. ("MPA")²⁹. CIB/IID at 19-59; IID at 11. Specifically, Hyundai argued that it satisfied the economic prong of the domestic industry requirement under prongs (A) and (B) based on: (1) investments in facility rent, equipment, and machinery, and the employment of labor and depreciation, by SL Alabama regarding its manufacturing of lamps protected by the '436, '980, and '947 patents (the three

²⁶ HMA "is the exclusive distributor of the Hyundai-branded automobiles and automobile parts and accessories in the United States" and "is responsible for distribution, product planning, warranty, sales and marketing, and quality control for Hyundai vehicles in the United States." IID at 11 (citing CIB/IID at 3, 43; CX-0221C (Carter Decl.) at ¶¶ 8, 58).

 $^{^{27}}$ HMMA is a wholly-owned subsidiary of HMA and assembles Hyundai vehicles in the United States, including and "several [DI] Vehicles—the Elantra, the Santa Fe, the Tucson SUVs, and Sonata." *Id.* (citing CX-0221C (Carter Decl.) at ¶ 3; CIB at 9).

²⁸ SL Alabama is a manufacturing facility located in Alexander City, Alabama that manufactures headlamps and taillamps for Hyundai. *Id.* (citing JX-0007C (C. Kim Depo Tr.) at 57:22-58:17).

²⁹ MPA is an authorized distributor of Hyundai service parts that receives imported DI Products intended for aftersales maintenance and repairs. *Id.* (citing CX-0220C (Sohn Decl.) at ¶ 3).

Domestically Manufactured DI Products' patents) from 2016 to 2018; (2) the employment of labor and depreciation in assembling vehicles containing lamps protected by the '217, '436, '003, '057, '574, '980, '292, '351, and '957 patents by HMMA from 2016 to 2019; (3) investments in facility rent and operating expenses, and the employment of labor and depreciation, regarding warehousing and distributing lamps protected by all 21 Asserted Patents by MPA from 2016 until the first half of 2021; and (4) investments in facility rent and operating expenses, and the employment of labor and depreciation, in facilitating distribution of and warranty repairs for new vehicles containing lamps protected by all 21 Asserted Patents by HMA from 2016 until the first half of 2021. CIB/IID at 21-55. Hyundai alleged that investments by each of the four entities were significant. *Id*.

With respect to SL Alabama, Hyundai asserted its investments were significant, citing that "SL Alabama's activities, including activities related to the manufacturing, warehousing, and distribution of DI Products are performed in the U.S.," lamp production accounts for "SL Alabama's] sales over the period," and "SL Alabama sales to Hyundai accounted for SL Alabama sales, of which is linked to sales of headlamps and taillamps" over the period. CIB/IID at 28. Hyundai then included a table, Table 6, showing SL Alabama's investments (not allocated by patent) as a share of total investments for prong A and prong B. *Id.* at 29. Hyundai made no argument in its economic prong initial post-hearing brief regarding any investment in ongoing qualifying activities after past significant investment with respect to asserting the significance of SL Alabama's investments for the '436, '980, and '947 patents (the three Domestically Manufactured DI Products' patents). *See* CIB/IID.

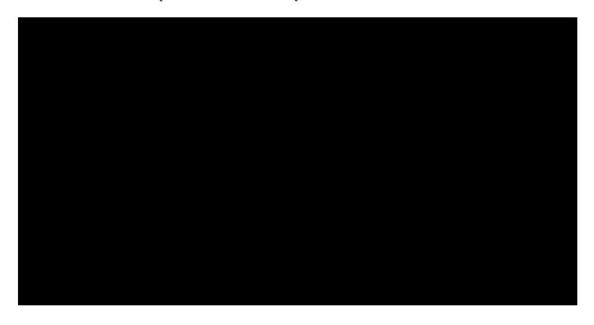
With respect to HMMA, Hyundai asserts its investments are significant, citing that "HMMA's DI investments —," and "DI Products made up about HMMA's domestic investment in headlamps and taillamps, as measured by [cost of goods sold ('COGS')]," during the period for prong B investments. *Id.* at 34-35.

With respect to MPA, Hyundai asserts its investments are significant, citing that "DI Investments in the context of MPA's investment in all headlamps and taillamps" are shown in a table indicating that prong A investments are of lamp investments and prong B investments are of lamp investments. *Id.* at 42-43.

With respect to HMA, Hyundai asserts its investments are significant, citing that HMA's "DI investments [under prong A and B combined] in the context of HMA's investments in all headlamps and taillamps [during the period] . . . accounted for of HMA's total investments in lamps" and including a table that shows that shows that percentage for prong A and B separately. *Id.* at 53.

Hyundai then argued that the four entities combined "have each invested substantial amounts to support the domestic industry related to headlamps and taillamps in Hyundai's vehicles." *Id.* at 54. Hyundai aggregated the four entities' investments for DI Products for all 21 Asserted Patents as follows:

Table 30: Summary of Domestic Industry Investments Allocated to DI Products



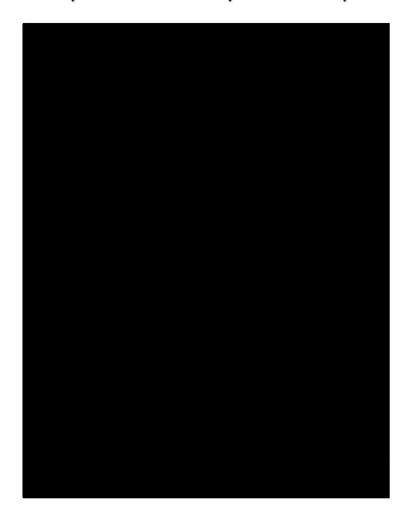
Id. Hyundai then: (1) derived patent-specific allocation factors based on SL Alabama's DI product sales revenue for a particular patent divided by SL Alabama's total DI product sales revenue, and multiplied the allocation factors by SL Alabama's total alleged prong A and prong B expenses; 30 (2) derived patent-specific allocation factors based on HMMA's DI products assembled in vehicles for a particular patent divided by HMMA's total DI products assembled in vehicles, and multiplied the allocation factors by HMMA's total alleged prong B expenses; 31 and (3) derived patent-specific allocation factors based on MPA's DI product sales revenue for a particular patent divided by MPA's total DI product sales revenue, and multiplied the allocation factors by MPA's and HMA's total alleged prong A and prong B expenses. 32 Hyundai then summed the investments across all four entities as follows:

³⁰ CDX-0002C at 28, 116; CDX-0149C.

³¹ CDX-0002C at 41-42; CDX-0150C.

³² CDX-0002C at 55-56; CDX-0151C; CDX-0152C.

Table 31: Summary of Domestic Industry Investments by Asserted Patent



Id. at 56 (quoting CDX-0002C at 92).

Hyundai alleged that "[t]he total DI investments at the per-patent level are also quantitatively and qualitatively significant because total DI investments for each patent are significant in comparison with the total MPA aftermarket replacement sales of DI products covered by the corresponding patent," and provided a single example, stating that "the total DI investments for the '864 patent represents of the replacement part sales for the DI lamps covered by that patent." *Id.* at 55-56. ³³ Hyundai's quantitative significance analysis therefore

³³ SL Alabama manufactures lamps for both new vehicles and as replacements, HMMA manufactures new vehicles using those lamps, and MPA distributes lamps for replacement only.

relied upon the total investments for a single patent and did not assert or explain why any investment was significant with respect to any other patent or with respect to prong A or prong B individually. *Id.* Moreover, Hyundai made no assertions with respect to any of the four entities that their investments on a patent specific basis were significant. *Id.* at 21-59.

Respondents' economic prong initial post-hearing brief contends, *inter alia*, that Hyundai did not have a domestic industry at the time of the filing of the complaint in 2021 with respect to the '057, '292, '351, '436, '947, and '980 patents because SL Alabama's manufacturing of those products ceased in 2019 or earlier, and Hyundai presented no ongoing qualifying activities.

RIB/IID³⁴ at 17-24. Respondents' reply post-hearing brief contends, *inter alia*, that Hyundai's significance analysis improperly aggregates investments under prong A and prong B and Hyundai did not, and cannot, identify any significance on a per-patent basis. RRB/IID³⁵ at 21-22. Respondents further argued that Hyundai's significance analysis "contains no comparisons or contextual analysis as to any patent and does not compare total-per-patent investments to MPA's sales." *Id.* at 24. Respondents additionally argued that Hyundai's alleged total DI investments include lamp manufacture, part distribution, and automobile production, and there is no logical reason to compare such investments to lamp sales to determine significance. *Id.*

IID at 12-13. Hyundai's example compares the sum of the four entities' investments to MPA's sales. Some of these investments are directed to lamps for installation in new vehicles (*i.e.*, SL Alabama and HMMA), and some of these investments are directed to replacement lamps (*i.e.*, SL Alabama, MPA, and HMA). *Id* at 12-13. MPA's sales, however, are directed only to replacement lamps. *Id.* at 13. Hyundai provides no explanation why comparing investments in lamps for new vehicles and for replacement to sales of lamps for replacement is appropriate.

³⁴ Respondents' Initial Post-Hearing Brief (May 2, 2022) ("RIB/IID").

³⁵ Respondents' Responsive Post-Hearing Brief (May 9, 2022) ("RRB/IID").

In its economic prong reply post-hearing brief, Hyundai contends, *inter alia*, that although SL Alabama's investments and employment ceased in 2019, MPA's and HMMA's activities constitute qualifying ongoing activities which allow Hyundai to rely upon SL Alabama's past investments. CRB/IID³⁶ at 12 (citing *Certain Television Sets, Television Receivers, Television Tuners, & Components Thereof*, Inv. No. 337-TA-910, Comm'n Op. at 69 (Oct. 30, 2015) (*"Television Sets"*)).

b. The IID's Findings

The IID finds that Hyundai satisfied the economic prong of the domestic industry requirement under both subsections (A) and (B) with respect to each of the Asserted Patents. IID at 12-13, 20-23, 30-33, 35-38. The IID considers the Asserted Patents in two groups:

1) the '436, '980, and '947 patents that covered products manufactured by SL Alabama in the United States until 2019 or earlier (hereinafter "Domestically Manufactured DI Products"), and 2) the '478, '8835, '836, '583, '319, '812, '5835, '690, '217, '003, '057, '574, '864, '865, '292, '351, '163, and '225 patents that covered products manufactured abroad and imported into the United States (hereinafter "Mobis DI Products"). *Id*.

For the three Domestically Manufactured DI Products' patents, the IID initially considers Hyundai's total investments made by SL Alabama to manufacture the products from 2016 to 2019, and then also considers MPA's ongoing investments in those products in 2021. *Id.* at 13-22. First, the IID finds that the 2016 to 2019 investments by SL Alabama were significant because of SLA Alabama's activities" were performed in the United States. *Id.* at 16-17. Second, the IID finds MPA made "ongoing investments" in 2021 for each of the three

³⁶ Complainants' Post-Hearing Responsive Brief on the Economic Prong of the Domestic Industry (May 9, 2022) ("CRB/IID").

Domestically Manufactured DI Products' patents under prongs (A) and (B). *Id.* at 18-19. To do so, although not advocated by either party, the IID allocates Hyundai's asserted SL Alabama's investments in plant and equipment and labor and capital to the Domestically Manufactured DI product patents using its own sales-based allocation methodology ("IID methodology") not used by either party. *Id.* at 18. The IID finds that while the resulting amounts "may not be large amounts when compared with the original investments in manufacturing, the Commission has not required that continuing investments be independently significant" and that "the realities of the marketplace are such that one would expect any continuing investments in the Domestically Manufactured Domestic Industry Products to be relatively small." *Id.* at 19. The IID does not separately consider the significance of the alleged investments for subsections (A) and (B). *Id.* at 13-22.

For the Asserted Patents protecting the Mobis DI Products, Hyundai argued that it made the following subsection (A) investments for each:

Patent No.	Plant and Equipment Investments
'478	
'8835	
'836	
'583	
'319	
'812	
'5835	
'690	
'217	
'003	
'057	
'574	
'864	
'865	
'292	
'351	
'163	
'225	

Id. at 13-14, 22-23. However, the IID finds that Hyundai erred by asserting that the sum total of its investments in the Mobis DI products were significant rather than explaining the significance of each Asserted Patent's investment individually. *Id.* at 30.

Due to Hyundai's deficient arguments as to whether the subsection (A) investments were significant for each of the Asserted Patents, the IID *sua sponte* performs its own calculation³⁷ that the IID alleges results in a percentage of investments to sales for each of the Mobis DI Products covered by the Asserted Patents. *Id.* at 30-35. Neither party argued for such calculations, and thus no party had an opportunity to challenge them before the CALJ. Specifically, the IID finds that Hyundai's plant and equipment investments divided by the sales revenues results in the following percentages:

Patent No.	Investments in Plant and Equipment (CDX-0002C at 115)	Industry Products	Investments/Sales
'478			
'8835			
'836			
'583			
'319			
'812			
'5835			
'690			
'217			
'003			
'057			
'574			
'864			
'865			
'478			
'292			
'351			
'163			
'225			

³⁷ This calculation is discussed in detail in Section IV.A.3.b., below.

Id. at 31-32. The IID finds that the investment in each Asserted Patent is significant based on the calculated percentages. *Id.*

For subsection (B) and the Mobis DI Products' patents, the IID finds that "the record supports an independent finding that a domestic industry exists under section 337(a)(3)(B) based on HMA's labor and capital investments supporting warranty work." *Id.* at 35-38. The IID considers Hyundai's assertion that is attributable to warranty expenses for all of the Asserted Patents. *Id.* at 36. The IID finds that "it is not necessary to determine the exact amount of warranty investments for each individual Domestic Industry Product" and "[w]ith of warranty expenses tied to the Domestic Industry Products specifically at issue in this investigation, it is very reasonable to infer the investment on a per product basis is significant." *Id.* at 38. The IID does not include any per-patent allocation or significance analysis for subsection (B) investments for the Mobis DI Products' patents. *Id.*

Respondents, but not Hyundai, petitioned for review of the IID. *See* Respondents'

Petition for Review of the Interim Initial Determination on the Economic Prong of Domestic

Industry (July 12, 2022).

2. FID Proceedings

On October 11, 2022, the CALJ requested additional post-hearing briefing on the potential implications of the mirror image issue and the representative products issue because findings as to those technical prong issues would affect the amount of investments to be credited in the economic prong analysis. Order No. 29 (Oct. 11, 2022). The parties submitted initial and reply supplemental briefs addressing those issues, as well as how rulings on those issues would impact the alleged economic prong investment values. Although the IID neither calculated nor relied upon a sales-to-investment ratio for the three Domestically Manufactured DI Products'

patents, Hyundai presented such calculations for those patents for the first time in its supplemental briefing. CSB at 7.

The FID finds, *inter alia*, that the IID's significance calculations assumed that Hyundai would be able to satisfy the technical prong of the domestic industry requirement for all of the alleged DI Products. FID at 116-117. Hyundai argued that a single part for each asserted patent satisfied the technical prong and the single part is representative of several additional parts, but upon consideration of the parties' briefing, the FID finds that Hyundai failed to show that the single parts were representative of additional parts, and thus finds that Hyundai cannot rely upon investments in those additional parts. *Id.* The FID therefore removes the so-called represented products from both the investment and sales columns of the IID's investment and sales chart and recalculates the investment-to-sales ratios as follows:

Patent No.	Hyundai's Investments/Sales (CSB at 12-13)	Respondents' Investments/Sales (RSRB at 31)
'478		
'8835		
'836		
'583		
'319		
'812		
'5835		
'690		
'217		
'436		
'003		
'057		
'574		
'980		

'864			
'865			
'292			
'351			
'163			
'947			
'225			

Id. at 117-119. Both parties and the FID included all 21 Asserted Patents in the table of updated percentages, however, the IID had included only the 18 Mobis DI product patents. *Compare id.* at 118-119 *with* IID at 31-32.

The FID finds that the reduced investment amounts are still significant because the recalculated percentages of investments to sales were still which which the FID finds is not materially different from the percentages that the IID finds significant. *Id.* The FID further finds that Hyundai has demonstrated significant investments in plant and equipment that satisfy the economic prong of the domestic industry requirement under subsection 337(a)(3)(A), but does not separately analyze whether Hyundai independently satisfied the economic prong of the domestic industry requirement through the employment of labor or capital under subsection (B). *Id.* at 120, n.18. Respondents, but not Hyundai, petitioned for review of the FID's findings regarding the economic prong of the domestic industry requirement. *See* Hyundai Pet. (petitioning for review of the FID's findings regarding infringement, the technical prong of the domestic industry requirement, remedy, and bonding only); Resp. Pet. (petitioning for review of the FID's findings regarding the economic prong of the domestic industry requirement).

3. Commission Review of the FID

Given that the IID's and FID's significance findings center around investment to sales ratios that were never raised by the parties, the Commission in its notice of review of the FID requested, *inter alia*, that the parties brief the following question:

3. Please discuss whether Hyundai satisfied its burden of proof to establish that it has satisfied the economic prong of the domestic industry requirement through significant investments in plant and equipment based on the revised patent-by-patent investments to account for the non-representative products. Please also identify, with citations to the record prior to the FID, where Hyundai satisfied its burden of proof as to the significance of the revised investments for each patent.

FID Review Notice at 31523-24.

Hyundai argued that the FID correctly finds that its investments in plant and equipment based on only the representative domestic industry products are significant and satisfy the economic prong of the domestic industry requirement. Hyundai IR at 21-25; Hyundai Reply at 6-11. Hyundai cited and relied on the FID, the IID, and Hyundai's initial response to the IID Review Notice.³⁸ *Id*.

Respondents argued that Hyundai failed to satisfy its burden as to the economic prong for several reasons, including a lack of evidence to support the finding that Hyundai's plant and equipment investments are significant. Respondents IR at 16-21; Respondents Reply at 10-11. Respondents also argued that they did not have an opportunity to respond to the bases on which the CALJ found that Hyundai satisfied the economic prong. *Id.* at 17, 21.

³⁸ Hyundai's response to the IID Review Notice similarly relied on the IID's findings (though it mistakenly represents that the IID included investment to sales ratios for three Domestically Manufactured DI Products' patents). Hyundai IID IR at 10-11. The response also cited the IID economic prong hearing exhibits that separately show Hyundai's asserted investments and sales revenue for DI products by patent but Hyundai did not compare the two to calculate investment to sales ratios. *Id*.

In reply, Hyundai argues that the investment-to-sales ratio did not appear for the first time in the IID, but rather that, for quantitative significance, Hyundai compared the sum of its prong A and prong B investments to sales revenue for the '864 patent as an example in its initial economic prong post-hearing brief to the CALJ. Hyundai Reply at 10 (citing CIB/IID at 56-57). Respondents' reply submission argues that Hyundai's initial submission fails to cite any record evidence where it satisfied its burden of proof to show significance of its investments and fails to explain why the investment-to-sales ratio demonstrates significance. Respondents Reply at 9-10.

4. The Economic Prong Was Not Satisfied for Any of the Asserted Patents³⁹

Because Hyundai is asserting 21 design patents, and each domestic industry product practices only one asserted design patent, Hyundai was required to demonstrate that investments in products that practice each of the 21 Asserted Patents are independently significant under prong A or prong B. As explained below, the Commission finds that Hyundai's reliance on the significance of its combined, total expenditures for multiple patents is fatal to its domestic industry argument. Accordingly, the Commission finds that Hyundai has failed prove that it has satisfied the economic prong of the domestic industry requirement with respect to any of the 21 Asserted Patents.

In a section 337 investigation, "[t]he burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied." *Elec. Candle Prods.*, Comm'n Op. at 11. According to the plain language of section 337 and Commission

³⁹ As discussed below, the Commission has determined to take no position on the FID's findings regarding the technical prong of the domestic industry requirement. However, the Commission notes that whether or not the technical prong was satisfied as to some or all of the DI products, the Commission's conclusion regarding the economic prong would not be affected because the error as to the economic prong is not dependent on a specific technical prong finding.

precedent, Hyundai was required to establish the existence of a domestic industry through significant or substantial investments with respect to articles protected by each Asserted Patent in order to establish a violation of section 337, but it failed to do so. The Commission also finds that the IID and FID err by finding significance based on a "per-patent investments divided by per-patent sales" methodology when Hyundai did not argue, in its economic prong post-hearing brief, for that methodology, and Respondents did not have an opportunity to challenge that methodology before the CALJ. *See* Order No. 2 at Ground Rules 11.2, 14.2, 14.3. Moreover, the calculated per-patent investment to sales percentages the IID and FID calculated do not represent a meaningful percentage by which to evaluate the significance of Hyundai's investments for the Asserted Patents, as explained below. Accordingly, Hyundai has failed to prove that it has satisfied the economic prong of the domestic industry requirement with respect to any of the Asserted Patents.

a. Hyundai Failed to Meet its Burden of Proof to Demonstrate Significant Investment With Respect to Each Asserted Patent

The Commission finds that Hyundai failed to satisfy its burden of proof to establish the economic prong of the domestic industry requirement under prong A or prong B with respect to any of the 21 Asserted Patents. For investigations that seek to establish a domestic industry under prongs A or B, "[t]he plain text of § 337 requires a quantitative analysis in determining whether a petitioner has demonstrated a 'significant investment in plant and equipment' or 'significant employment of labor or capital." *Lelo Inc. v. U.S. Int'l Trade Comm'n*, 786 F.3d 879, 883 (Fed. Cir. 2015). The term "significant" requires "an assessment of the relative

importance of the domestic activities,"⁴⁰ which requires a "proper contextual analysis to support the claim of a substantial or significant industry."⁴¹

The economic prong of the domestic industry requirement must be shown on a patent-by-patent basis, and it is not appropriate to aggregate investments directed to different articles protected by different patents for determining significance. *Electronic Stud Finders*, Comm'n Op. at 48-50 (requiring that a domestic industry be shown for each asserted patent); *see also John Mezzalingua Assocs.*, 660 F.3d at 1330-31 (requiring that a domestic industry be shown for each asserted patent). The Federal Circuit has similarly interpreted the statute, noting that, "[w]ith respect to subparagraph (A) of paragraph 337(a)(3), the 'significant investment in plant or equipment' that is required to show the existence of a domestic industry must exist 'with respect to the *articles protected by the patent*' in question," and "[s]imilarly, with respect to subparagraph (B) of paragraph 337(a)(3), the 'significant employment of labor or capital' that is required to show the existence of a domestic industry must exist 'with respect to the *articles protected by the patent*." *InterDigital*, 707 F.3d at 1297 (emphasis added).

The Federal Circuit has affirmed the Commission's interpretation of section 337 as requiring the existence of a domestic industry specifically for the articles protected by the patent at issue. In *John Mezzalingua Associates*, the Court affirmed the Commission's finding that the complainant failed to satisfy the domestic industry requirement for one patent (the '539 patent) out of four asserted patents. 660 F.3d at 1322, 1330-31. The Court held that the complainant "had presented no evidence of any investment in research and development that related

⁴⁰ Certain Concealed Cabinet Hinges and Mounting Plates, Inv. No. 337-TA-289, Comm'n Op., 1990 WL 10608981 at *11 (Jan. 8, 1990).

⁴¹ Certain Solid State Storage Drives, Stacked Electronics Components, and Products Containing Same, Inv. No. 337-TA-1097, Comm'n Op. at 31 (Jun. 29, 2018).

specifically to the '539 design patent, nor did it offer any allocation of its investment to that patent." *Id.* at 1330. The Court further held that complainant did not "identify how much of its investment in research and development related to the design protected by the '539 design patent, as opposed to the '509 family more generally, and it failed to do so." *Id.* at 1331. The Court affirmed the Commission's determination, and specifically noted "that the Commission based its ruling on [complainant's] failure to offer evidence sufficient to satisfy its burden of proof" as to the domestic industry requirement. *Id.*

Commission precedent also demonstrates that aggregating investments in articles that *are* protected by a specific patent with investments in articles that *are not* protected by that patent precludes meaningful consideration of the relevant investments under section 337. In *Audio Digital-to-Analog Converters*, the Commission explained that "[b]ecause complainant is asserting the '928 patent and the '501 patent, and the articles that practice said patents do not overlap, complainant must demonstrate the existence of two domestic industries." *Audio Digital-to-Analog Converters*, ID at 113. Similarly, in *Electronic Imaging Devices*, the Commission held that:

Because the investments in each Motorola product are specific to only one patent, Flashpoint must separately establish that Motorola's investments in the Admiral were sufficient to establish a domestic industry for the '471 patent and that the investments associated with the Razr Maxx were sufficient to satisfy the economic prong for the '538 Patent.

Comm'n Op. at 89.

Recently, in *Electronic Stud Finders*, Inv. No. 337-TA-1221, the Commission confirmed that a complainant erred in arguing that a single "stud finder" domestic industry existed based on the total investments from all asserted patents and numerous different products. Comm'n Op. at 48-54 (Mar. 14, 2022). The Commission explained that "aggregating investments in different domestic products that practice different patents effectively precludes the Commission from

quantifying the amounts of the investments in each statutory category and determining the significance of [complainant's] investments with respect [to] each of its asserted patents." *Id.* at 48. The complainant in that investigation provided no arguments or evidence as to the separate investments or the alleged significance of investments for individual products or patents, which was fatal to its domestic industry arguments. *Id.*

Hyundai, like the complainants in *Electronic Stud Finders*, *Audio Digital-to-Analog Converters*, and *Electronic Imaging Devices*, chose to assert patents that cover distinct inventions or designs, and then erred by relying on combined investments across multiple patents when each domestic industry product is protected by only one Asserted Patent. Like those complainants, Hyundai was required to separately establish a domestic industry with respect to articles protected by each of the Asserted Patents through significant investments in plant and equipment; significant employment of labor or capital; or substantial investments in the exploitation of the patent, but failed to do so.

The Commission's analysis of Hyundai's initial post-hearing brief at the IID phase demonstrates that Hyundai failed to satisfy its burden of proof on the economic prong of the domestic industry requirement. First, Hyundai's submissions repeatedly rely on aggregated investments in multiple products covered by different patents instead of establishing the satisfaction of the domestic industry requirement on a patent-by-patent basis under either prong A or prong B. *See Electronic Stud Finders* at 48-50 (rejecting reliance on aggregated investments). Hyundai's quantitative significance arguments relied on, for example, the assertions that: (1) of "related Hyundai vehicles" include the aggregated DI Products "as measured by the sales of the [DI Products] at issue relative to sales of lamps in the related Hyundai vehicles"; (2) for the automobiles produced by Hyundai Motor Manufacturing

Alabama, of all lamps include aggregated DI Products "as measured by Cost of Goods Sold"; (3) MPA's aftermarket sales of aggregated DI Products constitutes of its overall aftermarket sales of lamps; 42 (4) SL Alabama's activities occur in the United States and its aggregated sales of DI Products to Hyundai from 2016 to 2019 constitutes of its total sales; 43 (5) HMMA's aggregated expenditures on labor and depreciation from 2016 to 2019 regarding nine Asserted Patents are significant; (6) the aggregated expenditures for SL Alabama, HMMA, MPA, and HMA regarding all 21 Asserted Patents are significant; and (7) a comparison of aggregated investments across all 21 Asserted Patents to SL Alabama's lamp sales for DI vehicles shows significance. Complainants' Prehearing Brief on the Economic Prong of the Domestic Industry (April 8, 2022) at 1-2, 28, 30-32, 55-56, 59-60. Hyundai's attempts to rely on these analyses fail to carry Hyundai's burden of proof because they improperly rely on the alleged significance of aggregated investments across multiple patents rather than the significance of expenditures under prong A or prong B on patent-by-patent basis.

In addition to improperly aggregating investments across multiple patents, Hyundai's contextual analyses often failed to assess the expenditures themselves. Subsection 337(a)(3) requires "significant investment in plant and equipment" and "significant employment of labor or capital." 19 U.S.C. § 1337(a)(3). While Hyundai relied on metrics that describe the percentage of Hyundai vehicles that contain DI Products or the percentage of overall lamp sales revenue that

⁴² The IID correctly rejected arguments (1)-(3) because Hyundai incorrectly aggregated investments and thus failed to establish the economic prong on a patent-by-patent basis. IID at 30-31.

Hyundai also argues that SL Alabama's production of lamps (*i.e.*, both DI and non-DI lamps) accounts for of its sales revenue from 2016 to 2019, and that SL Alabama's sales of lamps (*i.e.*, both DI and non-DI lamps) to Hyundai accounts for SL Alabama's total sales revenue. CIB/IID at 28. Neither of these figures relates specifically to the DI Products.

is due to aggregated DI Products, such metrics did not address the investments made towards DI Products, and Hyundai did not explain why such metrics nonetheless relate to the question of whether its domestic investments are significant.

Further, with respect to arguing significant investment with respect to articles protected by the '436, '980, and '947 patents and manufactured by SL Alabama, Hyundai failed to assert significance based on past significant investments with any investment in ongoing qualifying activity with respect to those articles. 44 CIB/IID at 21-29. 45

Hyundai's economic prong post-hearing briefing contained a single instance in which Hyundai contended that its asserted investments are significant on a patent-by-patent basis.

CIB/IID at 55-56. Specifically, Hyundai provided a table, Table 31, detailing alleged investments for prong A, prong B, and "Total DI Investments" (*i.e.*, prong A investments + prong B investments), and then concluded without explanation that "[t]he total investments at the per-patent level are also quantitatively and qualitatively significant because total DI investments for each patent are significant in comparison with the total MPA aftermarket replacement sales of DI Products covered by the corresponding patent." *Id.* at 54-56. However, Hyundai's argument fails for at least three reasons. First, Hyundai improperly relied on the aggregate of its asserted prong A and prong B investments. *Id.* The statutory text of subsection 337(a)(3) does

⁴⁴ See Television Sets, Comm'n Op. at 69 ("where production, development or sales of protected articles have declined or even ceased entirely, a domestic industry may nevertheless be established based on past significant or substantial investments relating to the protected articles provided that complainant continues to maintain ongoing qualifying activities under section 337(a)(3) at the time the complaint was filed.").

⁴⁵ As discussed below, by the time of the FID, Hyundai also abandoned, and therefore waived, its arguments from its economic prong post-hearing brief that SL Alabama's investments were significant based, for example, on the United States.

A and prong B investments, but rather requires "significant investment in plant and equipment" or "significant employment of labor or capital." 19 U.S.C. § 1337(a)(3). 46 Furthermore, Hyundai actually performs that numerical comparison for only the '864 patent—arguing that the combined prong A and prong B expenditures for the DI Products covered by the '864 patent are significant because the sum is of the sales revenue for those DI Products

—and therefore provides no comparison (and thus no significance argument) for the remaining 18 Asserted Patents. CIB/IID at 55-56.

Second, Hyundai failed to explain the relevance of comparing the sum of all four entities' investments to MPA's sales. *Id.* at 55-56. Some of these investments are directed to lamps for installation in new vehicles (*i.e.*, SL Alabama and HMMA), and some of these investments are directed to replacement lamps (*i.e.*, SL Alabama, MPA, and HMA). IID at 11-13. MPA's sales, however, are directed only to replacement lamps. *Id.* at 13. Hyundai provides no explanation why comparing investments in lamps for new vehicles and for replacement to sales of lamps for replacement is appropriate.

Third, Hyundai's significance comparison is not a meaningful per-patent significance metric. CIB/IID at 55-56. Hyundai makes the same error as the IID's calculations, which are described in detail below in Section IV.A.4.b.ii. Specifically, Hyundai uses Table 20's per-patent MPA sales revenue (column G) to calculate the allocation percentage (column H), and then uses that allocation percentage to calculate the per-patent DI investments by MPA and

⁴⁶ See also Certain Carburetors and Products Containing Such Carburetors, Inv. No. 337-TA-1123, USITC Pub. 5080, Comm'n Op. at 21 (Sept. 12, 2019) (rejecting an economic prong allegation that "add[ed] together the three investment values for subparagraphs (A), (B), and (C)"). Accordingly, whether the sum of the prong A and prong B expenditures is significant is irrelevant under section 337.

HMA⁴⁷ (CDX-0151C; CDX-0152C), which are totaled in Table 31. CDX-0002C at 55 (Table 20); CIB/IID at 55-56. Hyundai then divides the 864 patent's total DI investments in Table 31 by the '864 patent's MPA sales revenue in Table 20 (column G) and asserts that the '864 patent's total DI investments are for the '864 patent.

Id. However, this percentage is not specific to the '864 patent or a per-patent significance percentage. When calculating the percentage, Table 20's per-patent MPA sales revenue (column G) for the allocation percentage in the numerator cancels out Table 20's per-patent MPA sales revenue (column G) in the denominator. Dividing the total DI investments by MPA and HMA for all 21 Asserted Patents for prongs A and B (148) by the MPA total DI product sales revenue (149), also results in total DI investments that are for the replacement part sales for all Asserted Patents combined. Hyundai's comparison percentage is essentially comparing the total DI investments to the total DI revenue and is meaningless for a per-patent significance analysis. Hyundai's comparison percentage is

⁴⁷ Neither SL Alabama nor HMMA made any investments for the '864 patent. *See* CDX-0149C; CDX-0150C.

MPA's total DI investments for all 21 Asserted Patents for prong A and prong B is

. CDX-0151C. HMA's total DI investments for all 21 Asserted Patents for prong A and prong B is

. CDX-0152C. The total DI investments for MPA and HMA is

⁴⁹ CDX-0002C at 57 (column G).

This is further confirmed when checking other patents, for example, the '478 patent percentage and the '836 patent percentage and the '836 patent percentage .

⁵¹ Furthermore, Hyundai actually performed that numerical comparison for only the '864 patent, and therefore provided no comparison (and thus no significance argument) for the remaining 20 Asserted Patents. CIB/IID at 56-57.

The Commission's FID Review Notice specifically requested that Hyundai explain, with citations to the record, whether it satisfied its burden of proof on the economic prong of the domestic industry requirement, including "where Hyundai satisfied its burden of proof as to the significance" of its investments "for each patent." In its response, Hyundai failed to identify where in the record it carried its burden. While Hyundai's initial briefing response asserted that the burden was satisfied, including on the issue of significance of its investments on a per-patent basis, Hyundai cited only the FID and a previous submission that argued the burden of proof was satisfied by the CALJ's findings in the IID at pages 31-32, which cited a demonstrative exhibit (CDX-0002C) that separately showed Hyundai's investments and sales revenue for DI products. Hyundai IR at 21-24 (citing FID at 117-120; Hyundai IID IR at 10-16). Hyundai's reply briefing similarly explained that the burden of proof was satisfied by the CALJ's findings in the IID at pages 30 to 32 and the CALJ's findings in the FID at pages 116-120. Hyundai Reply at 6-11.⁵² Hyundai, however, has the burden of proof to establish the economic prong of the domestic industry requirement by a preponderance of the evidence for each of the 21 Asserted Patents. Hyundai cannot meet its burden merely by pointing to the methodology that was independently derived by the CALJ, when Hyundai, as discussed above, did not present such a basis for determining the significance of its domestic investments on a per-patent basis, and Respondents had no opportunity to address any such arguments from Hyundai before the CALJ. Hyundai also cannot meet its burden of proof to show the significance of its investments on a patent-by-patent

⁵² Hyundai also asserts that it previously argued that the sum of the prong A and prong B expenses of the '864 patent should be compared to MPA's sales revenue for the '864 patent in its initial post-hearing brief for the IID proceedings, Hyundai Reply at 10, but ignores that neither the IID nor the FID relied on that analysis. Moreover, as explained *infra*, section 337(a)(3) requires significant investment under prong A or significant employment under prong B, neither of which is established by alleging that the combined sum of prong A and prong B is significant.

basis by citing a demonstrative exhibit that separately shows investments and revenue of the DI products by patent. Nowhere in its submissions prior to the IID's findings did Hyundai itself compare its investments and revenues in DI products based on the figures shown in the cited demonstrative exhibit on a patent-by-patent basis or assert significance on the basis of such a comparison, and Respondents had no opportunity to respond to any such arguments before the CALJ. By failing to do so, Hyundai waived any argument that it satisfied the economic prong of the domestic industry requirement on this basis for any of the Asserted Patents. Order No. 2 at Ground Rule 14.2; *Kyocera Wireless Corp. v. U.S. Int'l Trade Comm'n*, 545 F.3d 1340, 1352 (Fed. Cir. 2008).

Accordingly, Hyundai's significance arguments during the IID proceeding:

(1) improperly aggregated investments across multiple patents; (2) improperly aggregated investments across multiple prongs; and/or (3) addressed the importance of the DI Products in general rather than the importance of investment in each particular DI Product. Hyundai also failed when arguing the significance of SL Alabama's investments to assert past significant investments with any investment in ongoing qualifying activities in articles protected by the three Domestically Manufactured DI Products' patents and manufactured by SL Alabama prior to 2019. Hyundai abandoned all other significance arguments by failing to include them in its initial post-hearing brief. ⁵³ Hyundai therefore failed to carry its burden of proof to establish the satisfaction of the domestic industry requirement of any of Hyundai's 21 Asserted Patents.

⁵³ Under the Ground Rules, Hyundai abandoned all arguments on which Hyundai had the burden of proof but which Hyundai failed to make in its initial post-hearing brief. Order No. 2 (Jan. 25, 2022) at Ground Rule 14.2 (stating that the initial post-hearing brief must address "issues upon which the party bears the burden of proof" and that "[a]ny contentions for which a party has the burden of proof that are not set forth in detail in the post-hearing initial brief shall be deemed abandoned or withdrawn."). These abandoned arguments are waived. *Kyocera Wireless Corp.*, 545 F.3d at 1352 (finding that arguments not presented to the ALJ are waived).

b. The IID and the FID Err By Finding Significance Despite Hyundai's Failure to Meet Its Burden of Proof and Relying on a Flawed Methodology

The IID errs by finding the economic prong satisfied. Hyundai failed to meet its burden of proof to show the significance of its domestic investments on a patent-by-patent basis under either subsection 337(a)(3)(A) or 337(a)(3)(B) and the IID errs in nonetheless finding significant investments with respect to each of the 21 Asserted Patents based on methodologies that Hyundai has waived, as explained below. Accordingly, the Commission has determined to vacate the IID. Because the FID's significance analysis for the economic prong relies upon the IID's now-vacated significance analysis, the Commission has determined to vacate the FID's significance analysis as well.

Additionally, as explained below, the methodology employed by the IID and FID to calculate per-patent investment to sales ratios is flawed and fails to provide a meaningful metric by which to evaluate the significance of those investments. This provides an additional, independent reason for the Commission to vacate the IID's and FID's economic prong analysis.

i. The IID's Finding of Significance Regarding the Three Domestically Manufactured DI Products' Patents

The IID finds that the economic prong of the domestic industry requirement is satisfied with respect to the three patents practiced by the Domestically Manufactured DI Products (the '436, '980, and '947 patents) based on both SL Alabama's manufacturing activities from 2016 to 2018 and MPA's ongoing investments in sales and warehousing in 2021. IID at 16-22. The IID relies on *Television Sets*, in which the Commission found that "where production,

Additionally, by the time of the FID, Hyundai abandoned, and therefore waived, its arguments from its economic prong initial post-hearing brief that SL Alabama's investments were significant based, for example, on 100 percent of its activities occurring in the United States.

development or sales of protected articles have declined or even ceased entirely, a domestic industry may nevertheless be established based on past significant or substantial investments relating to the protected articles provided that complainant continues to maintain ongoing qualifying activities under section 337(a)(3) at the time the complaint was filed." *Television Sets* at 69.

When the CALJ requested briefing on how a rejection of Hyundai's representative products argument would impact Hyundai's economic prong case, Hyundai did not address the IID's findings with respect to the three Domestically Manufactured Products' patents and instead expanded the investment-to-sales ratio table that the IID had relied upon for the other 18 Asserted Patents to include all 21 Asserted Patents. *See* CSB at 12-14. Hyundai's briefing in response to the Commission's question as to where Hyundai established its burden of proof similarly identifies only the investment-to-sales ratios for all 21 Asserted Patents. Hyundai IR at 21-24; Hyundai Reply at 6-11. While the FID adopted Hyundai's proposal, the FID contains no discussion of changing the significance rationale for the three Domestically Manufactured DI Products' patents (the '436, '980, and '947 patents). FID at 116-120. ⁵⁴

Accordingly, Hyundai waived: (1) any argument that SL Alabama's investments were significant based on past significant investments with ongoing qualifying activities with respect to the Domestically Manufactured DI Products by not asserting such an argument in its IID initial post-hearing brief, (2) any argument that it satisfied its burden of proof on the economic prong with respect to the three Domestically Manufactured DI Products' patents with respect to past investments made by SL Alabama, by abandoning them at the FID stage, and (3) any

⁵⁴ In its Supplemental Briefing, Hyundai represented that it was updating the "table on pages 31-32 of the Interim ID." However, Hyundai did not simply update the table on those pages of the IID but it added rows for the '436, '980, and '947 patents. CSB at 12-13.

argument that investments with respect to the three patents were significant based on a comparison of investments to sales ratios (as Hyundai purports to show in its Order No. 29 Supplemental Brief) because it failed to assert such a basis in its post-hearing briefing at the IID stage. Order No. 2 at Ground Rule 14.2; *Kyocera*, 545 F.3d at 1352. Because the IID's and FID's significance findings with respect to the '436, '980, and '947 patents relied on theories that Hyundai had waived, both the IID's and the FID's economic prong findings are in error. Accordingly, the Commission vacates the IID's and the FID's findings with respect to the '436, '980, and '947 patents.

ii. The IID's Finding of Significance Under Prong A Regarding the Remaining 18 Asserted Patents

The IID finds that the economic prong of the domestic industry is satisfied under prong A with respect to the remaining 18 Asserted Patents. IID at 22-35. The IID correctly rejected all of Hyundai's arguments regarding significance for improperly aggregating investments across multiple patents and across multiple prongs. *Id.* at 30-31. However, although not advocated for by any party, the IID determines significance by comparing the combined allocated prong A investments of MPA and HMA from 2016 to 2021 to MPA's allocated aftermarket sales revenue from 2017 to 2021. *Id.* at 31-32 (citing CDX-0002C at 115, 57). The IID then divides the allocated investments by the allocated aftermarket sales revenue for all of the 18 remaining Asserted Patents, finds that the resulting ratio for each patent is and concludes that these ratios show that the investments for all 18 patents are quantitatively significant. *Id.* Respondents did not have an opportunity to challenge this methodology before the CALJ.

The IID errs by making a series of significance findings that were never raised by any party. In particular, no party argued that significance should be determined by comparing the

entities' combined prong A investments to MPA's aftermarket sales revenue, no party argued that such a comparison should be conducted by dividing such allocated investments by allocated sales revenue, and no party argued that a resulting value of demonstrates quantitative significance. The IID's significance findings are substantially different from the significance case presented by Hyundai, and the disclosure of that significance rationale for the first time in the IID after the close of briefing prevented Respondents from having the opportunity to respond before the CALJ to that line of reasoning and to present rebuttal evidence.

Moreover, the IID's significance analysis is flawed. As described below, due to a fundamental flaw in its construction, the "sales-based" allocation set forth in the IID does not meaningfully allocate the alleged investments on a per-patent basis. *See* IID at 30-32. As such, the resulting percentages have no relation to the significance of the per-patent investments. Accordingly, even if the argument were not waived, as elaborated below, there is no analysis on the record of whether the alleged investment for each of these 18 Asserted Patents is significant.

In both the IID and the FID, the calculated per-patent percentages of alleged investments to sales are essentially identical for each Asserted Patent despite the per-patent investment amounts varying by , as shown in the chart below:

Patent	Investments in Plant and Equipment	Sales of Domestic Industry Products	T
No.	(CDX-0002C at 115)	(CDX-0002C at 57)	Investments/Sales
478			
8835			
836			
583			
319			
812			
5835			
690			
217			



IID at 31-32. In addition, the calculated per-patent percentages of alleged investments to sales are essentially identical for each Asserted Patent despite the per-patent investment amounts varying by hundreds of thousands of dollars, as shown in the table below:

Patent No.	IID's Investments/Sales (IID at 31-32)	FID's Investments/Sales (FID at 118-119; CSB at 12-13)
'478		
'8835		
'836		
'583		
'319		
'812		
'5835		
'690		
'217		
'436		
'003		
'057		
'574		
'980		
'864		
'865		
'292		
'351		
'163		
'947		
'225		

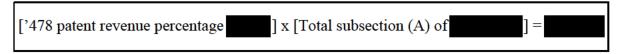
 $^{^{55}}$ The IID did not calculate percentages of investments/sales for the '436, '980, and '947 patents. IID at 31-32, 18-19.

FID at 118-119; IID at 31-32.

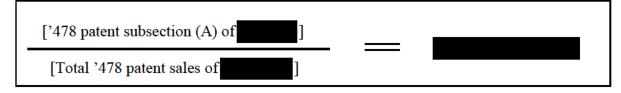
Simple algebra demonstrates the error in both the FID's and IID's analysis. ⁵⁶ The first equation is the patent-specific sales divided by the total domestic industry products sales to calculate the per-patent revenue percentage. *See* CDX-0002C at 55, 57. For example, for the '478 patent, the patent revenue percentage is (which is calculated below):

[Total '478 patent sales [Total DI products sales]

Id. The following equation multiplies the per-patent revenue percentage by the total plant and equipment investment. *See* CDX-0002C at 90, 92, 115. For example, the '478 patent plant and equipment investment is which is calculated below).

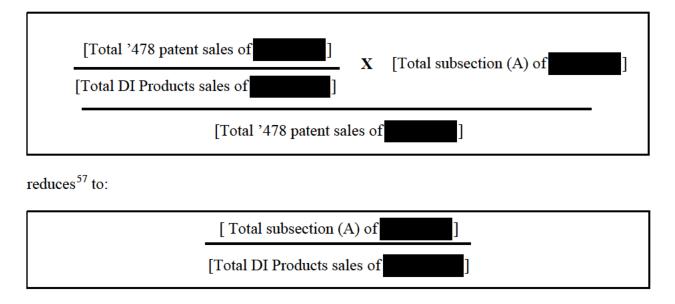


Id. That per-patent plant and equipment investment is then divided by the per-patent sales to calculate the investments/sales percentage (see below). *Id.*; *see also* IID at 31-32.



However, if the equations are considered together, the calculation cancels out the per-patent sales and reduces to the total plant and equipment investments divided by the total DI Products sales, which results in the *exact same investments/sales percentage* for every Asserted Patent. For example:

⁵⁶ While this discussion uses the IID's own calculation of the per-patent investment percentages for plant and equipment expenditures as an example, the analysis also applies to Hyundai's warranty per-patent allocations with respect to labor and capital.



Accordingly, every alleged "investment to sales" percentage for each Asserted Patent is exactly the same and, thus, is essentially meaningless. To the extent there is variance in the percentages in the IID or Hyundai's submission, those minimal differences can be attributed to the use of different time ranges for the calculations (2017-2021 for MPA, and 2016-2021 for HMMA), and the use of rounding and limited significant figures. Hyundai's arguments as to the per-patent allocation of investments made only after issuance of the IID suffer from the same problematic methodology because Hyundai adopts the IID methodology, as does the FID which also adopts the same methodology. CSB at 7; Hyundai IR at 22-25; FID at 41-42.

In conclusion, the IID's prong A analysis for the remaining 18 Asserted Patents erroneously denied Respondents the opportunity to respond to the significance reasoning and to provide rebuttal evidence. Further, the analysis also erroneously used a flawed metric. By relying solely on the IID's flawed significance analysis, Hyundai waived any other argument

by the reciprocal (inverse) of the denominator-fraction. Here, the numerator is multiplied by (1/[Total '478 patent sales of []). Next, the [Total '478 patent sales of []] in both the numerator and denominator cancel each other out.

why its investments are significant. The Commission has therefore determined to vacate the IID's prong A analysis for the remaining 18 Asserted Patents. Because the FID's prong A analysis for all 21 Asserted Patents relies on the IID's erroneous prong A analysis, the Commission has determined to vacate the FID's prong A analysis as well.

iii. The IID's Finding of Significance Under Prong B Regarding the Remaining 18 Asserted Patents

The IID finds that the economic prong of the domestic industry requirement is satisfied under prong B with respect to the remaining 18 Asserted Patents based on HMA's aggregated expenditure of on mechanic labor for warranty repairs across all 21 Asserted Patents. IID at 36-38; CDX-0002C at 76. The IID's analysis, however, considers only the total warranty investment for all of the domestic industry products that practice the remaining 18 Asserted Patents without taking the additional step of allocating the warranty investments on a per-patent basis and determining whether the investments in each patent are significant. *Id*. This is error. *See Electronic Stud Finders*, Comm'n Op. at 48. The IID correctly notes that "where each asserted patent covers only one product, a domestic industry must be determined to exist with respect to each patented product," but the IID fails to apply that principle when it found Hyundai's investments significant under subsection (B). *Compare IID* at 30-31 with id. at 35-38.

In particular, the IID's error affects the quantitative significance analysis. IID at 38; see

Lelo, 786 F.3d at 883. The IID's sole finding for quantitative significance of the labor and
capital investments for the Mobis DI Products' patents is: "With more than

⁵⁸ The FID does not separately analyze whether Hyundai independently satisfied the economic prong of the domestic industry requirement through significant employment of labor or capital under subsection (B). FID at 120, n.18. As the IID's findings under subsection (B) remain under review, the Commission addresses those findings herein. *Id*.

warranty expenses tied to the Domestic Industry Products specifically at issue in this investigation, it is very reasonable to infer the investment on a per product basis is significant." *Id.* The IID's significance findings are thus erroneous as they are not based on investments in domestic industry articles as to each Asserted Patent (where each domestic industry article practices only one of the Asserted Patents).

iv. Summary

The Commission finds that Hyundai has not shown satisfaction of the economic prong under prong A or B and that the IID and FID erred in finding otherwise. Accordingly, the Commission vacates the IID's and the FID's economic prong findings⁵⁹ and finds that Hyundai has failed to satisfy the domestic industry requirement with respect to any of the Asserted Patents.⁶⁰

B. Infringement, Technical Prong of the Domestic Industry, and Invalidity

The Commission's finding that Hyundai failed to establish the economic prong of the domestic industry requirement for any of the 21 Asserted Patents is a dispositive finding that results in a finding of no violation of section 337 for each of the Asserted Patents. Based on the dispositive nature of the economic prong findings, the Commission has determined to take no position on the issues of infringement, satisfaction of the technical prong of the domestic industry requirement, and invalidity. *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984).

⁵⁹ The Commission notes that, by vacating the IID and the FID's economic prong analysis based on the above analysis, it is not reaching other economic prong issues, such as what expenses are cognizable for satisfaction of the economic prong.

⁶⁰ Moreover, the Commission denies as moot the Respondents' Motion to Strike because the Commission need not consider the public interest factors if no remedy is issued.

V. **CONCLUSION**

The Commission has considered all of the other arguments by the parties and does not

find them persuasive. Therefore, for the reasons set forth herein, the Commission determines

that Hyundai has not established a violation of section 337 by Respondents with respect to any of

the Asserted Patents. Accordingly, the investigation is terminated with a finding of no violation

of section 337.

By order of the Commission.

Lisa R. Barton

Secretary to the Commission

/n/2/3

Issued: March 22, 2024

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UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

CERTAIN REPLACEMENT AUTOMOTIVE LAMPS (II) **Investigation No. 337-TA-1292**

CONCURRING VIEWS OF COMMISSIONER SCHMIDTLEIN

I agree with today's outcome that complainants have failed to establish the economic prong of the domestic industry requirement for any of the asserted patents, and therefore agree that there has been no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337. I do not, however, join the majority's opinion because it goes beyond what is necessary to dispose of the investigation.

In my view, complainants failed to establish the economic prong of the domestic industry requirement based on their failure to assert the significance of the asserted domestic investments on a patent-by-patent basis under either subsection 337(a)(3)(A) or 337(a)(3)(B).⁶¹ Specifically, at the interim ID stage, complainants' post-hearing brief failed to allege significance of the

⁶¹ See John Mezzalingua Assocs., Inc. v. Int'l Trade Comm'n, 660 F.3d 1322, 1330-31 (Fed. Cir. 2011) (complainant erred in arguing combined investments for multiple patents and failing to allocate for single design patent); Certain Electronic Stud Finders, Metal Detectors and Electrical Scanners, Inv. No. 337-TA-1221, Comm'n Op. at 48-50 (Mar. 14, 2022) ("[A]ggregating investments in different domestic products that practice different patents effectively precludes the Commission from quantifying the amounts of the investments in each statutory category and determining the significance of [complainant's] investments with respect [to] each of its asserted patents."); Certain Electronic Imaging Devices, Inv. No. 337-TA-850, Comm'n Op. at 89 (Apr. 21, 2014) (where first product practiced one patent and second product practiced a second patent, the complainant was required to show significant investment in each product separately).

asserted domestic investments on a per-patent basis under either subsection 337(a)(3)(A) or 337(a)(3)(B). Moreover, after the interim ID and in response to the presiding ALJ's and the Commission's requests for briefing on the economic prong, 62 complainants abandoned the significance arguments they did present in their post-hearing brief and instead relied on a method for showing significance that they never presented prior to the interim ID. 63 In that briefing after the interim ID, complainants relied on the method that the interim ID independently derived to address significance on a per-patent basis.⁶⁴ The interim ID calculated an investment-to-sales ratio for each patent, which the interim ID found showed the significance of the asserted investments. IID at 31-32. By not arguing in favor of this method of showing significance in its post-hearing brief at the interim ID stage, complainants waived their ability to assert that method. Moreover, even if this argument was not waived by complainants, it appears that the investmentto-sales ratio approach used in the interim ID and later advanced by complainants is unreliable because it cancels out per-patent information. This is because the same sales data that is used to apportion the domestic investments on a per-patent basis is then used to generate the investmentto-sales ratio. The result is that the approach yields an investment-to-sales ratio that effectively

⁶² The Commission sought economic prong briefing from the parties as part of its review of the interim ID and its review of the Final ID. Also, the ALJ requested post-interim ID briefing on the impact of technical prong issues on the economic prong analysis. *See* Order No. 29 (Oct. 11, 2022).

⁶³ For example, complainant abandoned any argument it may have made in its post-hearing interim ID brief that SL Alabama's investments were significant based on the percentage of activities occurring in the United States.

⁶⁴ The interim ID's approach addressed the significance of the asserted domestic investments by dividing complainants' subsection 337(a)(3)(A) investments (allocated on a patent-by-patent basis) by MPA's sales revenue (also allocated on a patent-by-patent basis). IID at 31-32.

is total plant and equipment investments for all patents divided by the total domestic industry products sales for all patents. Accordingly, the investment-to-sales ratio is nearly the same for all the asserted patents and does not appear to show significance on a per-patent basis. *See* IID at 31-32.

For these reasons I agree with the majority's decision to vacate the interim ID and economic prong findings in the final ID. I also agree with the majority's determination to take no position on the issues of infringement, satisfaction of the technical prong of the domestic industry requirement, and invalidity.