Large Diameter Graphite Electrodes from China and India

Investigation Nos. 701-TA-787–788 and 731-TA-1775–1776 (Preliminary)

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U.S. International Trade Commission

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U.S. International Trade Commission

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CONTENTS

CONTENTS

Page

CONTENTS

Page

CONTENTS

Page

Appendixes

Note.—Information that would reveal confidential operations of individual firms may not be published. Such information is identified by brackets ([ ]) in confidential reports and is deleted and replaced with asterisks (***) in public reports. Zeroes, null values, and undefined calculations are suppressed and shown as em dashes (—) in tables. If using a screen reader, we recommend increasing the verbosity setting.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-787-788 and 731-TA-1775-1776 (Preliminary)

Large Diameter Graphite Electrodes from China and India

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of large diameter graphite electrodes from China and India, provided for in statistical reporting number 8545.11.0020 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value ("LTFV") and imports of the subject merchandise from China and India that are alleged to be subsidized by the governments of China and India.[2]

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in § 207.21 of the Commission's rules, upon notice from the U.S. Department of Commerce ("Commerce") of affirmative preliminary determinations in the investigations under §§ 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under §§ 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Any other party may file an entry of appearance for the final phase of the investigations after publication of the final phase notice of scheduling. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives,

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[1] The record is defined in § 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

[2] 91 FR 13577 and 91 FR 13581, March 20, 2026.

who are parties to the investigations. As provided in section 207.20 of the Commission’s rules, the Director of the Office of Investigations will circulate draft questionnaires for the final phase of the investigations to parties to the investigations, placing copies on the Commission’s Electronic Document Information System (EDIS, https://edis.usitc.gov), for comment.

BACKGROUND

On February 24, 2026, Resonac Graphite America Inc., Ridgeville, South Carolina; and Tokai Carbon GE LLC, Charlotte, North Carolina filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of large diameter graphite electrodes from China and India and LTFV imports of large diameter graphite electrodes from China and India. Accordingly, effective February 24, 2026, the Commission instituted countervailing duty investigation Nos. 701-TA-787-788 and antidumping duty investigation Nos. 731-TA-1775-1776 (Preliminary).

Notice of the institution of the Commission’s investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of February 27, 2026 (91 FR 9885). The Commission conducted its conference on March 17, 2026. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of large diameter graphite electrodes ("LDGEs") from China and India that are allegedly sold in the United States at less than fair value ("LTFV") and subsidized by the governments of China and India.

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping and countervailing duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determinations, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of the allegedly unfairly traded imports.[1] In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."[2]

II. Background

The petitions in these investigations were filed on February 24, 2026, by Resonac Graphite America Inc. ("Resonac") and Tokai Carbon GE LLC ("Tokai") (collectively, "Petitioners"), domestic producers of LDGEs.[3] Petitioners participated in the staff conference accompanied by counsel and submitted a postconference brief.[4]

One respondent entity participated in these investigations. UKCG Group Ltd. ("UKCG"),

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[1] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

[2] *American Lamb Co.*, 785 F.2d at 1001; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

[3] *See* Petitions for the Imposition of Antidumping and Countervailing Duties, EDIS Doc. 873318 (Feb. 24, 2026) ("Petitions"); Confidential Report, Memorandum INV-YY-047 (April 3, 2026) ("CR") at 1.1; *Large Diameter Graphite Electrodes from China and India*, Inv. Nos. 701-TA-787-788 and 731-TA-1775-1776 (Preliminary), USITC Pub. 5728 (April 2026) ("PR") at 1.1.

[4] *See* Transcript of Preliminary Conference, EDIS Doc. 875731 (Mar. 18, 2026) ("Conference Tr."); Petitioners' Postconference Brief, EDIS Doc. 876079 (Mar. 20, 2026) ("Pets. Postconference Br.").

an importer of subject merchandise from China, appeared at the staff conference and submitted a postconference brief.[5]

U.S. industry data in the staff report are based on questionnaire responses of three firms accounting for all known U.S. production of LDGEs from 2023 to 2025.[6] U.S. import data are based on questionnaire responses from 12 U.S. importers, accounting for virtually all of the U.S. imports from China and India under Harmonized Tariff Schedule statistical reporting number 8545.11.0020.[7] Foreign industry data and related information are based on questionnaire responses of two producers/exporters of LDGEs in India accounting for approximately *** percent of LDGE production in India in 2025.[8] No responses to the Commission's foreign producer/exporter questionnaire were received from producers/exporters of LDGEs in China.

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the "domestic like product" and the "industry."[9] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[10] In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[11]

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[5] UKCG's Postconference Brief, EDIS Doc. 876222 (Mar. 23, 2026) ("UKCG Postconference Br.").

[6] CR/PR at 1.4-1.5.

[7] CR/PR at 4.1. Questionnaire responses also represent a large volume of in-scope product under other HTS numbers, including imports from India that appear to be misclassified under HTS statistical reporting number 8545.11.0050 as well as imports of unfinished LDGEs and pinning and connecting systems under HTS statistical reporting numbers 3801.10.0000, 3801.10.5000, and 3801.90.0000. *Id*. Subject producer *** reported that it acts as the importer of record for its LDGEs entering the United States but was unable to complete a U.S. importer questionnaire, and ***. *Id*. at n.6. Import data are understated under HTS statistical reporting number 8545.11.0020 due to U.S. importers *** importing finished LDGEs, U.S. importer *** importing unfinished graphite electrodes, and U.S. producers *** importing pinning and connecting systems all under other HTS numbers. *See* CR/PR at 4.16, 4.18, 4.19.

[8] CR/PR at 7.3. The foreign producer questionnaire responses reported exports of subject merchandise equivalent to *** percent of reported imports from India. *Id.*

[9] 19 U.S.C. § 1677(4)(A).

[10] 19 U.S.C. § 1677(4)(A).

[11] 19 U.S.C. § 1677(10).

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by the U.S. Department of Commerce ("Commerce").[12] Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is "necessarily the starting point of the Commission's like product analysis."[13] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[14] The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[15] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[16] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[17] The Commission may, where

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[12] 19 U.S.C. § 1677(10). The Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See*, *e.g.*, *USEC, Inc. v. United States*, 34 F. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.2d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

[13] *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, 949 F.3d 710, 717 (Fed. Cir. 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[14] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington Co. v. United States*, 747 F. Supp. 744, 748–52 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

[15] *See, e.g.*, *Cleo*, 501 F.3d at 1299; *NEC Corp. v. Dep't of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

[16] *See*, *e.g.*, S. Rep. No. 96-249 at 90–91 (1979).

[17] *See*, *e.g.*, *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748–49*; see also* S. Rep. No. 96-249 at 90–91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[18]

A. Scope Definition

In its notices of initiation, Commerce defined the imported merchandise within the scope of these investigations as:

> The merchandise covered by these investigations includes all large diameter graphite electrodes of any length, whether or not finished, of a kind used in furnaces, with a nominal or actual diameter exceeding 425 millimeters (16.7 inches), and whether or not attached to a graphite pin joining system or any other type of joining system or hardware. The merchandise covered by these investigations also includes graphite pin joining systems (commonly referred to as pins or nipples) for large diameter graphite electrodes, of any length, and with a minimum diameter of 228.6 mm (9 inches) at its widest transverse cross-section, whether or not finished, of a kind used in furnaces, and whether or not the graphite pin joining system is attached to, sold with, or sold separately from, the large diameter graphite electrode. Unfinished large diameter graphite electrodes are graphitized electrodes that have not undergone final machining. For purposes of these investigations, the country of origin is determined by the country of graphitization.
>
> Excluded from the scope of these investigations are large diameter graphite electrodes that are subject to the existing antidumping duty order on Small Diameter Graphite Electrodes from the People's Republic of China. See Antidumping Duty Order: Small Diameter Graphite Electrodes from the People's Republic of China, 74 FR 8775 (February 26, 2009) (SDGE China AD Order) due to an affirmative determination of circumvention that imports of graphite electrodes from the People's Republic of China, produced and/or exported by Sinosteel Jilin Carbon Co., Ltd. and Jilin Carbon Import & Export Company (collectively, Jilin Carbon), with an actual or nominal diameter of 17 inches and otherwise

[18] *See*, *e.g.*, *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 & 731-TA-895–896 (Final), USITC Pub. 3467 (Nov. 2001) at 8 n.34; *Torrington,* 747 F. Supp. at 748–49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

> meeting the description of the scope of the SDGE China AD Order constitute merchandise subject to the SDGE China AD Order. See Small Diameter Graphite Electrodes from the People's Republic of China: Affirmative Final Determination of Circumvention of the Antidumping Duty Order and Rescission of Later-Developed Merchandise Anticircumvention Inquiry, 78 FR 56864 (September 16, 2013). In the case of graphite electrodes entering the United States determined to be subject to the SDGE China AD Order, such order controls. In the case of graphite electrodes entering the United States meeting the scope definition of these investigations and not covered by the scope of the SDGE China AD Order, the scope of these investigations controls.
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> Large diameter graphite electrodes and graphite pin joining systems for large diameter graphite electrodes that are covered by these investigations are currently classified under the Harmonized Tariff Schedule of the United States (HTSUS) statistical reporting number 8545.11.0020. Merchandise covered by these investigations may also enter under HTSUS statistical reporting numbers 3801.10.5090 or 3801.90.0050. The HTSUS numbers are provided for convenience and customs purposes, but the written description of the scope is dispositive.[19]

LDGEs are cylindrical in shape and are produced in a variety of diameters and lengths. LDGEs are produced and sold in diameter increments of 2 inches, ranging from 18 inches through 32 inches.[20] The most common diameter of LDGEs is 24 inches and the most common lengths for LDGEs are 96 inches and 110 inches.[21] They are used primarily in electric arc furnace ("EAF") melting applications and higher power input ladle refining applications supporting large steel melting operations.[22] They conduct electricity at very high currents to generate the heat necessary to melt scrap metal, iron ore, and other raw materials in the

[19] *Large Diameter Graphite Electrodes from the People's Republic of China and India: Initiation of Less-Than-Fair-Value Investigations*, 91 Fed. Reg. 13,581 (Dep't of Commerce March 20, 2026) ("*AD Initiation Notice*"); *Large Diameter Graphite Electrodes from the People's Republic of China and India: Initiation of Countervailing Duty Investigations*, 91 Fed. Reg. 13,577 (Dep't of Commerce March 20, 2026) ("*CVD Initiation Notice*").

[20] CR/PR at 1.10.

[21] CR/PR at 1.10.

[22] CR/PR at 1.10.

process of making or refining steel or other metals.[23] LDGEs vary in current carrying capacity, depending on the grade of the petroleum coke—ranging from low grade anode coke to high grade needle coke—used to produce them, and are characterized as high power ("HP") or ultra-high power ("UHP").[24] Both ends of a graphite electrode feature a threaded socket and complementary threaded graphite pins are fitted into those sockets to form a graphite joining system,[25] with the pins connecting one electrode to another to form an electrode column for use in an EAF.[26] Because of the intensity of the melting process in steel production, the electrodes are continuously consumed, with a single electrode typically completely oxidizing within ten to 12 hours.[27]

LDGEs are manufactured in a multi-stage process consisting of forming, baking, impregnation, rebaking, and graphitization.[28] After graphitization, LDGEs are still considered unfinished, but fall within the scope definition.[29] Subsequently, after cooling, the electrodes are machined and fitted with the pin joining system.[30]

B. Arguments of the Parties

Petitioners argue that the Commission should define a single domestic like product consisting of all LDGEs, coextensive with Commerce's scope.[31] They contend that all domestically produced LDGEs within the scope have similar physical characteristics and uses, channels of distribution, common manufacturing facilities, production processes, and employees, customer and producer perceptions, and are sold within a range of similar prices.[32] Although LDGEs have standardized sizes and other shared characteristics, Petitioners acknowledge that there is a range of performance criteria and that steelmaking systems are designed to operate using a specific optimum electrode diameter and grade.[33] Petitioners further contend that the Commission should not define the domestic like product to include

[23] CR/PR at 1.10.

[24] CR/PR at 1.12.

[25] Petitions, volume I at 9-10.

[26] CR/PR at 1.11, 1.14; Petitions, volume I at 9-10, 9 n.7. We note that, despite being separate components, pinning systems and pins are sometimes conflated in discussions of LDGEs. CR/PR at 4.9 n.12.

[27] CR/PR at 1.11; Conference Tr. at 96 (Duenas) (estimating that a single graphite electrode is consumed in ten to 12 hours), 97 (Luberda) (explaining that the connecting pins are also continuously consumed because they are made of the same material).

[28] CR/PR at 1.13-1.15.

[29] CR/PR at 1.14.

[30] CR/PR at 1.13-1.14.

[31] Pets. Postconference Br. at 3-6.

[32] Pets. Postconference Br. at 4-6.

[33] Pets. Postconference Br. at 4-5.

other graphite electrodes, in particular small diameter graphite electrodes ("SDGEs") (graphite electrodes with diameters of 8 to 16 inches), which are excluded from the scope and, with respect to imports from China, subject to an existing antidumping order.[34]

Respondent does not challenge Petitioners' definition of the domestic like product.[35]

C. Analysis

Based on the record, we define a single domestic like product consisting of all domestically produced LDGEs, coextensive with the scope in these investigations.

Physical Characteristics and Uses. The record indicates that all domestically produced LDGEs meeting the scope definition are produced primarily from thermal graphitization of calcined petroleum needle coke or calcined pitch needle coke and coal tar pitch.[36] Many LDGEs use premium needle coke exclusively, but some use a blend of mostly needle coke with some anode-grade petroleum coke.[37] Although there are some variations in terms of diameter and length, all domestically produced LDGEs share the same cylindrical shape and common features, such as threaded electrode sockets; are generally produced to either the UHP or HP standard; and have similar physical characteristics that allow them to carry currents from 25,000 to 160,000 amps in both EAF applications for steel making and in higher power output

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[34] *See generally* Pets. Postconference Br. at 3-6 (citing the Commission's domestic like product findings regarding SDGEs and LDGEs in *Small Diameter Graphite Electrodes from China*, Inv. No. 731-TA-1143 (Final), USITC Pub. 4062 (Feb. 2009)). Petitioners contend that the physical characteristics and uses for LDGEs are unlike those for SDGEs; LDGEs are not interchangeable with SDGEs; the manufacturing equipment facilities for SDGEs cannot be used to produce LDGEs; the channels of distribution for LDGEs are sometimes unlike those for SDGEs; customer and producer perceptions of LDGEs are unlike those for SDGEs; and LDGEs are sold at different prices than SDGEs. Pets. Postconference Br. at 4-6 (citing *Small Diameter Graphite Electrodes from China*, USITC Pub. 4062).

In its prior investigations of SDGEs, the Commission did not include LDGEs in the definition of the domestic like product. While respondents in that investigation had argued that SDGEs and LDGEs formed a continuum of product and should be included in a single like product definition (broader than the scope), the Commission found that the record indicated a clear dividing line between SDGEs and LDGEs at 16 inches in diameter based on differing end uses; little overlap between the manufacturing facilities and equipment used to produce SDGEs and LDGEs; different physical characteristics such as coke content; and that purchasers did not use SDGEs and LDGEs for the same applications. *Small Diameter Graphite Electrodes from China*, Inv. No. 731-TA-1143 (Final), USITC Pub. 4062 (Feb. 2009) at 9-10. The record in the preliminary phase of these investigations does not indicate that those distinctions have changed, and no party argued for expanding the domestic like product beyond the scope to include SDGEs. Additionally, no responding U.S. producer reported producing graphite electrodes with diameters below 14 inches during the POI, and just one producer reported producing graphite electrodes with diameters between 14 and 16.7 inches over the period. CR/PR at 3.9, Table 3.8.

[35] *See generally* UKCG Postconference Br.

[36] CR/PR at 1.9 & 1.13; Pets. Postconference Br. at 4; CR/PR at 1.11.

[37] CR/PR at 1.10.

ladle refining applications to support large steel melting operations.[38] Petitioners state that LDGEs are always produced to higher power standards and with the technical characteristics necessary for more demanding end use applications, such as EAF steel melting.[39]

Manufacturing Facilities, Production Processes, and Employees. All domestically produced LDGEs meeting the scope definition are manufactured using the same general production process, which includes forming, baking, pitch impregnation, rebaking, graphitization, machining, fitting, and packaging.[40] Graphitization is typically done using the Acheson process or an in-line (or lengthwise) graphitization furnace.[41] The record indicates that all domestically produced LDGEs are graphitized in in-line furnaces, which are more efficient because they require shorter heating periods, consume less power, and require less labor.[42]

Channels of Distribution. U.S. producers generally sell LDGEs directly to the end user because LDGEs are made to meet end user's specific plant and equipment needs for steelmaking.[43]

Interchangeability. The record indicates that LDGEs are made to the specifications of the purchaser, including diameter, length, joining system, and length of connecting pin, and that an EAF is designed around an LDGE with particular specifications, and the EAF accordingly cannot use a graphite electrode with different specifications without significant modification to the furnace.[44] Yet within these specific applications, customers expect some level of interchangeability for LDGEs from multiple producers, as evidenced by their qualifying multiple producers whose customized LDGEs are interchangeable.[45]

Producer and Customer Perceptions. According to Petitioners, customers and producers perceive all LDGEs meeting the scope definition to be comparable based on similar product size, high power levels, and suitability for use in steelmaking.[46]

Price. The pricing data indicate that quarterly prices among the various pricing products for domestically produced in-scope LDGEs overlapped within similar ranges during the 2023 to 2025 period of investigation ("POI").[47] Petitioners contend that all LDGEs are sold within a

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[38] CR/PR at 1.10-1.14.

[39] Petitions, volume I at 17-18.

[40] CR/PR at 1.13-1.15; Petitions, volume I at 8-10.

[41] CR/PR at 1.14.

[42] CR/PR at 1.14.

[43] CR/PR at 1.10, 2.3.

[44] CR/PR at 1.11; Pets. Postconference Br. at 4-5.

[45] Conference Tr. at 48-49 (Duenas) (describing the qualification process), 59-60 (Duenas) (stating that once a producer is qualified, customers "require{}" LDGEs to be interchangeable).

[46] Pets. Postconference Br. at 6; Petitions, volume I at 20.

[47] CR/PR at Table 5.10.

reasonable range of similar prices.[48]

Conclusion. The record indicates that LDGEs differ in sizes and grades, and furnaces cannot easily switch between LDGEs of different sizes, but that LDGEs from different producers made to the same specifications are generally interchangeable. Further, all LDGEs are made primarily of the same raw materials, and generally have the same physical characteristics and end uses. All LDGEs are made through the same production process, are used in EAFs to melt and refine steel, are sold (albeit at varying prices) to end users, and are perceived to be a single product category by market participants.

Based on the record of the preliminary phase of these investigations, we define a single domestic like product consisting of all domestically produced LDGEs, coextensive with the scope.[49]

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[50] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

Petitioners argue that there are no related party issues and therefore the Commission should define a single domestic industry consisting of all domestic LDGE producers.[51] No Respondent contests Petitioners' definition of the domestic industry.[52] No U.S. producer directly imported or purchased subject merchandise.[53] The record of these preliminary investigations does not indicate that any U.S. producers of LDGEs are currently related to subject producers in China or India or to U.S. importers of the subject merchandise.[54] [55]

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[48] Pets. Postconference Br. at 6, Ex. 4. Petitioners contend that as LDGEs are sold by weight, as the length of an electrode increases, so does the price. Conference Tr. at 64-65 (Duenas).

[49] In any final phase of these investigations, parties wishing to raise domestic like product issues should identify those issues in their comments on the draft questionnaires so that the Commission can identify new information that may need to be collected. All requests for collecting new information must be presented in comments on the draft questionnaires. 19 C.F.R. § 207.20(b).

[50] 19 U.S.C. § 1677(4)(A).

[51] Pets. Postconference Brief at 6-7.

[52] *See generally* UKCG Postconference Br.

[53] CR/PR at 3.12.

[54] U.S. producer Resonac was related to a subject producer in China for a portion of the POI through a parent company, Resonac Holdings. CR/PR at 3.2 n.2. However, this producer reportedly did not export any LDGE to the United States, on May 16, 2025, Resonac Holdings announced that it would

Accordingly, based on our definition of the domestic like product, we define the domestic industry to include all domestic producers of LDGEs.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.[56] The statute further provides that subject imports from a single country which comprise less than 3 percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than 7 percent of the volume of all such merchandise imported into the United States.[57] In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative ("USTR")), the statute indicates that the negligibility limits are 4 percent and 9 percent, rather than 3 percent and 7 percent.[58]

Petitioners, relying on calculations using official import statistics, argue that subject imports from both China and India are clearly above negligible levels.[59] Respondent did not make any arguments with respect to negligibility.

Based on the Commission's questionnaire data and official import statistics, during the 12-month period preceding filing of the petition (February 2025 to January 2026), subject

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no longer produce graphite electrodes in China, and Petitioners have represented that no U.S. producer is currently related to a producer/exporter of subject merchandise. CR/PR at 3.2 n.2, Tables 3.2-3.3; Pets. Postconference Br. at 7. Resonac further reported that it neither imported nor purchased subject imports during the POI. CR/PR at 3.2 & 3.11.

[55] While U.S. producer GrafTech engaged in graphitization operations in 2023 and 2024, it ceased graphitization operations in June 2024 ***. CR/PR at 3.1 n.1. Given GrafTech's graphitization operations over approximately half of the POI, for purposes of these preliminary determinations we do not see a need to assess whether it engaged in sufficient production related activities to be included in the domestic industry. In any final phase of these investigations, parties wishing to raise domestic industry issues should identify those issues in their comments on the draft questionnaires so that the Commission can identify new information that may need to be collected. All requests for collecting new information must be presented in comments on the draft questionnaires. 19 C.F.R. § 207.20(b).

[56] 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

[57] 19 U.S.C. § 1677(24)(A)(ii).

[58] 19 U.S.C. § 1677(24)(B). The USTR has deemed neither of the subject countries in these investigations a developing country. *See Designations of Developing and Least Developed Countries Under the Countervailing Duty Law*, 85 Fed. Reg. 7613 (Feb. 10, 2020).

[59] Pets. Postconference Br. at 17.

imports from China accounted for *** percent of total LDGE imports and subject imports from India accounted for *** percent of such imports.[60] As subject imports from each subject country exceed the three percent negligibility threshold, we find that imports of LDGEs from China and India are not negligible.

VI. Cumulation

For purposes of evaluating the volume and effects for a determination of reasonable indication of material injury by reason of subject imports, section 771(7)(G)(i) of the Tariff Act requires the Commission to cumulate subject imports from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with the domestic like product in the U.S. market. In assessing whether subject imports compete with each other and with the domestic like product, the Commission generally has considered four factors:

(1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;

(2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;

(3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and

(4) whether the subject imports are simultaneously present in the market.[61]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.[62] Only a "reasonable overlap" of competition is required.[63]

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[60] CR/PR at Table 4.6.

[61] *See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-80 (Final), USITC Pub. 1845 (May 1986), *aff'*d, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int'l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

[62] *See*, *e.g.*, *Wieland Werke, AG v. United States*, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

[63] The Statement of Administrative Action (SAA) to the Uruguay Round Agreements Act (URAA), expressly states that "the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition." H.R. Rep. No. 103-

A. Arguments of the Parties

Petitioners argue that the Commission should cumulatively assess imports from both subject countries. They note that the petitions for both subject countries were filed on the same day and contend that a reasonable overlap in competition exists between LDGEs produced in the subject countries and among LDGEs from both subject countries and the domestic like product.[64] According to Petitioners, subject imports from China and India should be cumulated for purposes of present material injury since they are fungible with the domestic like product and each other, are sold in the same geographic markets, share common channels of distribution, and were both present in the U.S. market in every month during the POI.[65]

UKCG argues that the Commission should decline to cumulate subject imports from China and India because imports from each country are not fungible with each other and compete under distinct conditions of competition.[66] It asserts that the pertinent commercial standard for LDGEs, International Electrotechnical Commission ("IEC") 60239:2005, confirms that electrodes and pins from different suppliers cannot be mixed without increasing the risks of operational failure.[67] For additional support, it cites a declaration from Fu Qiang, the Secretary-General of the China Carbon Industry Association, an email prepared by Eric Marshall of Universal Stainless and Alloy Products, and testimony from the domestic industry witness claiming that LDGEs from different suppliers cannot be used interchangeably.[68] UKCG also asserts that imports from each country have different channels of distribution, with Indian producers selling directly to U.S. steel mill end users using conventional commercial terms, and Chinese producers selling through technical intermediaries such as UKCG described as "bundled service channel{s}," which include engineering consultation, electrode system integration, performance optimization, and electrode recycling and reclamation services.[69] Finally, UKCG argues that imports from China and India are not "simultaneous{ly} present at the border" because they compete for sales in advance through a supplier-specific, multi-step qualification process.[70]

316, Vol. I at 848 (1994) (*citing Fundicao Tupy*, 678 F. Supp. at 902); *see Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int'l Trade 1998) ("cumulation does not require two products to be highly fungible"); *Wieland Werke, AG*, 718 F. Supp. at 52 ("Completely overlapping markets are not required.").

[64] Pets. Postconference Br. at 18-19.

[65] Pets. Postconference Br. at 19-20.

[66] UKCG Postconference Br. at 13-14.

[67] UKCG Postconference Br. at 11-12.

[68] UKCG Postconference Br. at 12 (citing Exs. 2-3 & Conference Tr. at 79 (McCloy and Duenas)).

[69] UKCG Postconference Br. at 12-13.

[70] UKCG Postconference Br. at 13.

B. Analysis and Conclusion

We consider subject imports from China and India on a cumulated basis as we find that the statutory criteria for cumulation are satisfied. As an initial matter, Petitioners filed the instant antidumping and countervailing duty petitions with respect to both subject countries on the same day, February 24, 2026.[71]

Fungibility. All U.S. producers reported that that subject imports from each subject country are always interchangeable with each other as well as with domestically produced LDGEs.[72] Similarly, nearly all U.S. importers reported that subject imports from each subject country are always or frequently interchangeable with each other and with the domestic like product.[73]

The Commission received pricing data for only *** percentage of sales of subject imports from India.[74] Domestic producers reported sales of domestically produced products 1 through 4, and U.S. importers reported sales of products 1 and 3 imported from China throughout the POI.[75] Additionally, 10 of 11 purchasers responding to the Commission's Lost Sales/Lost Revenue survey reported buying subject imports from China and/or India rather than domestically produced LDGEs, again indicating fungibility between the domestic like product and subject imports from each of these sources.[76]

In 2025, domestically produced LDGEs and imports from each subject source overlapped by product type and size. Almost all U.S. shipments of LDGEs from the domestic producers, as well as subject imports from China and India, were UHP finished LDGEs.[77] There were no U.S. shipments of HP unfinished LDGEs; however, China and India had a small volume of U.S.

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[71] CR/PR at 1.1. None of the statutory exceptions to cumulation applies.

[72] CR/PR at Table 2.9.

[73] CR/PR at Table 2.10. For domestically produced LDGEs and subject imports from China, three importers rated the products as always interchangeable, five importers rated the products as frequently interchangeable, and one importer rated the products as sometimes interchangeable. *Id.*

For domestically produced LDGEs and subject imports from India, three importers rated the products as always interchangeable, three importers rated the products as frequently interchangeable, and one importer rated the products as sometimes interchangeable. *Id.*

For subject imports of LDGEs from China and subject imports of LDGEs from India, three importers rated the products as always interchangeable, three importers rated the products as frequently interchangeable, and one importer rated the products as sometimes interchangeable. *Id.*

[74] CR/PR at 5.5 & n.6. The Commission received pricing data accounting for *** percent of U.S. commercial shipments from India. The major importers of LDGEs from India did not provide either pricing or purchase cost data.

[75] CR/PR at Tables 5.4-5.7.

[76] CR/PR at 5.26; Table 5.21. Six purchasers reported buying LDGEs imported from China rather than the domestic like product, and eight purchasers reported buying LDGEs imported from India rather than the domestic like product. *Id*.

[77] CR/PR at Table 4.6.

shipments of HP finished LDGEs.[78] In terms of comparability of diameter size, U.S. shipments of LDGEs with an outer diameter of less than 24 inches and U.S. shipments with an outer diameter between 24 and 28 inches were reported from all subject sources and the domestic industry.[79] For U.S. shipments of LDGEs consisting of an outer diameter of greater than 28 inches, U.S. shipments were reported from every source but China.[80]

Channels of Distribution. Throughout the POI, virtually all LDGEs were sold to end users.[81] According to Petitioners, subject imports from both countries and the domestic like product are sold to steel mills.[82]

Geographic Overlap. Domestic producers reported shipping the domestic like product to all regions in the contiguous United States during the POI.[83] U.S. importers reported shipping subject imports from China to all regions of the contiguous United States except for the Mountain region, and subject imports from India to the Northeast, Midwest and Southwest regions.[84]

Simultaneous Presence in Market. According to the quarterly pricing data of the preliminary phase of these investigations, domestically produced LDGEs were present in the U.S. market for every quarter from 2023 to 2025.[85] During the 36-month POI, subject imports from China were present in the U.S. market in all months except for June 2025, and subject imports from India were present in the U.S. market in all months except for June, July, and December 2025.[86]

Conclusion. The record indicates that subject imports from China and India are generally fungible with the domestic like product and each other, that subject imports from each subject country and the domestic like product are sold in similar channels of distribution and in similar geographic markets, and have been simultaneously present in the U.S. market for almost all months of the POI.

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[78] CR/PR at Table 4.6. Petitioners state that "U.S. producers can produce and do quote *** LDGEs as well." Pets. Postconference Br. at 11 (citing *id.* at Ex. 10, Duenas Dec. ¶ 5).

[79] CR/PR at Table 4.7.

[80] CR/PR at Table 4.7.

[81] CR/PR at 2.3 (citing Conference Tr. at 14 (McCloy). This statement is supported by questionnaire data. *Id.* at 2.3 n.4.

[82] Pets. Postconference Br. at 20 (citing Conference Tr. at 15-17 (McCloy), 20 & 25 (Duenas); Petitioners' Witness Statement, EDIS Doc. 875597 (Mar. 16, 2026) ("Petitioners' Witness Statement") at slide 5.

[83] CR/PR at Table 2.4.

[84] CR/PR at Table 2.4. Subject imports from China entered the United States in 2025 through all borders, but primarily through the northern and eastern borders. CR/PR at Table 4.8. Subject imports from India entered the United States primarily through the eastern border, with a smaller amount through the northern border. *Id.*

[85] CR/PR at Tables 5.4-5.7.

[86] CR/PR at Table 4.9.

We are unpersuaded by UKCG's arguments that subject imports are not fungible with the domestic like product.[87] UKCG contends that individual customer specifications and requirements limit interchangeability. The record indicates that, although LDGEs are customized to a particular mill's individual standards, they are produced to a certain grade, primarily UHP,[88] customers often qualify multiple producers whose customized LDGEs are interchangeable, and customers can generally use any LDGE that meets their specifications and standards.[89] Indeed, nearly all U.S. importers reported that LDGEs from China and India are always or frequently interchangeable with domestically produced LDGEs.[90] In addition, in their Lost Sales/Lost Revenue survey responses, purchasers reported purchasing subject imports from China and India in lieu of domestically produced LDGEs, reflecting head-to-head competition between the domestic industry and such imports for sales to these purchasers.[91] Petitioners also provided several additional examples of head-to-head competition between domestically produced LDGEs and subject imports in their postconference brief.[92]

Nor does the record support that there are different conditions of competition for imports from China versus India. Contrary to UKCG's assertions that subject imports from India and China are distributed differently, the record indicates that imports from both countries are sold primarily to end users.[93] U.S. producers and the majority of U.S. importers also reported that there are only sometimes or never significant differences other than price between subject imports from the two countries and the domestic like product.[94] In addition, although UKCG emphasizes additional services that it offers, such as "bundled service channels" and reclamation services,[95] the domestic industry has provided evidence indicating that reclamation

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[87] UKCG Postconference Br. at 10-11.

[88] CR/PR at 1.13 (noting that most LDGEs are produced to the UH standard and that imported LDGEs have similar physical characteristics, production processes, and raw material inputs); Conference Tr. at 126-127 (Ringel), 108 (McGhee) ("There is industry standards as far as diameter, lengths, and connecting pins are concerned."), 123 ("Interchangeability is, again, covered by industry standards").

[89] CR/PR at 1.11; Conference Tr. at 48-49 (Duenas) (describing the qualification process), 59-60 (Duenas) (stating that once a producer is qualified, customers "require{}" LDGEs to be interchangeable). Although customers may qualify multiple producers, the record indicates that customers prefer purchasing LGDEs in "long runs" from one producer. Conference Tr. at 98-99 (Duenas) (explaining that customers "work in batches" from one producer); UKCG Postconference Br. at Appendix A at "Customer Request for Foreign-Made Graphite Electrode").

[90] CR/PR at Table 2.10.

[91] CR/PR at 5.26 & Tables 5.20-5.21.

[92] Pets. Postconference Br. at 15-16; *id.* at Ex. 5, Flanagan Dec. at ¶ 8; *id.* at Ex. 10, Duenas Dec. ¶¶ 4-9 & Attachments 1-4; *id.* at Ex. 11, McCloy Dec. ¶¶ 2-4.

[93] CR/PR at 1.11-1.13, 2.3; UKCG Postconference Br. at 12-13.

[94] CR/PR at Tables 2.9-2.12.

[95] UKCG Postconference Br. at 12-13.

services constitute a small portion of any given sale.[96] Petitioners have also provided additional examples of head-to-head competition between subject imports from China and India.[97] As to UKCG's argument that each customer's unique technical qualification process precludes a finding that imports from China and India are simultaneously present in the market, as discussed above, the record supports that customers typically qualify multiple suppliers.[98] Although customers may purchase in "batches" from individual suppliers, the Lost Sales/Lost Revenue survey data indicate that purchasers bought subject imports instead of domestically produced LDGEs.[99] Thus, the record reflects that there is direct competition between and among imported LDGEs from different countries and the domestic like product.[100]

Because the record indicates that there is a reasonable overlap of competition between and among imports from each subject country and the domestic like product, we consider subject imports from China and India on a cumulated basis for our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

VII. Reasonable Indication of Material Injury by Reason of Subject Imports

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under

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[96] Pets. Postconference Br. at Ex. 5, Flanagan Dec. at ¶ 9; *id.* at Ex. 10, Duenas Dec. ¶¶ 10-12. Even if India does not offer similarly bundled services, that does not preclude the Commission from finding that competition exists between subject import sources. The Commission is required only to find a "reasonable overlap" and not a "complete overlap" of competition. *See, e.g.*, *International Industries, Ltd. v. United States*, 311 F. Supp. 3d 1325, 1330 (Ct. Int'l Trade 2018) (citing *Mukand Ltd. v. United States*, 937 F. Supp. 910, 916 (Ct. Int'l Trade 1996)). Additionally, UKCG does not account for all subject imports from China, and it also *** in 2025. CR/PR at Table 4.1.

[97] Pets. Postconference Br. at Ex. 10, Duenas Dec. at ¶ 5 & Attachment 1 (citing a lost sale in which ***; *id.* at Ex. 11, McCloy Dec. at ¶ 3 (discussing a ***).

[98] Conference Tr. at 48-49 (Duenas), 59-60 (Duenas) (stating that once a producer is qualified, customers "require{}" LDGEs to be interchangeable).

[99] CR/PR at 5.26 & Tables 5.19-5.21.

[100] CR/PR at 5.26 & Tables 5.19-5.21; Pets. Postconference Br. at Ex. 10, Duenas Dec., Attachments 1-4. UKCG cites *Goss Graphic System, Inc. v. United States*, 33 F. Supp. 2d 1082 (Ct. Int'l Trade 1988) to support its position that "{s}imultaneous presence in the broader U.S. market does not translate into simultaneous competition for the same sales." UKCG Postconference Br. at 13. In *Goss Graphic Systems*, however, the court sustained the Commission's determination and explained that there could be head-to-head competition for a custom product based on "competition at the initial stages of bidding even if they did not compete at the final bid stage." *Id.* at 1087-88 (citing *Granges Metallverken AB v. United States*, 13 CIT 471 (1989)). Similarly, in these investigations, the record reflects that there is head-to-head competition between and among different LDGE sources.

investigation.[101] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.[102] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[103] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[104] No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[105]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[106] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[107] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[108]

In many investigations, there are other economic factors at work, some or all of which

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[101] 19 U.S.C. §§ 1671b(a), 1673b(a).

[102] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor … and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[103] 19 U.S.C. § 1677(7)(A).

[104] 19 U.S.C. § 1677(7)(C)(iii).

[105] 19 U.S.C. § 1677(7)(C)(iii).

[106] 19 U.S.C. §§ 1671b(a), 1673b(a).

[107] *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), *aff'd,* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

[108] The Federal Circuit, in addressing the causation standard of the statute, observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1381 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass'n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.[109] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[110] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[111] It is clear that the existence of injury caused by other factors does not compel a negative determination.[112]

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[109] Uruguay Round Agreements Act Statement of Administrative Action ("SAA"), H.R. Rep. 103-316, vol. I. at 851-52 ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); *accord Mittal Steel*, 542 F.3d at 877.

[110] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n,* 266 F.3d at 1345 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that "{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e*., it is not an 'other causal factor,' then there is nothing to further examine regarding attribution to injury"), *citing Gerald Metals,* 132 F.3d at 722 (the statute "does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

[111] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

[112] *See Nippon Steel Corp*., 345 F.3d at 1381 ("an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the 'dumping' need not be the sole or principal cause of injury.").

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports."[113] The Commission ensures that it has "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [114] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[115]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[116] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[117]

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

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[113] *Mittal Steel*, 542 F.3d at 876 & 78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology."), *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[114] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant "other factor" may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

[115] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal Steel*, 542 F.3d at 879 ("*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

[116] We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[117] *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp.*, 458 F.3d at 1350, *citing U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

i. Demand Conditions

Demand for LDGEs is driven by the demand for steel, and the structural increase in the use of larger, higher-powered EAF in steelmaking within the United States.[118]

A majority of U.S. producers and all U.S. importers agree that demand for LDGEs is cyclical and follows demand for the steel industry, and particularly, those portions of the steel industry that utilize EAFs.[119] All responding U.S. producers reported that U.S. demand for LDGEs had fluctuated upwards since January 1, 2023.[120] Responses from U.S. importers were mixed, with two importers each reporting that demand for LDGEs had steadily increased, had no change, fluctuated downwards, and steadily decreased, and three importers reporting that demand for LDGEs had fluctuated upwards.[121] At the staff conference, all parties agreed that demand for LDGEs was expected to increase in the future due to increased steel production and new EAF mills coming online.[122]

Apparent U.S. consumption of LDGEs declined by *** percent from 2023 to 2025, falling from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025.[123] [124]

ii. Supply Conditions

Two firms, Resonac and Tokai Carbon, currently manufacture LDGEs in the United States.[125] In 2025, Resonac accounted for *** percent of domestic production of LDGEs, and

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[118] CR/PR at 2.1 & 2.7; Pets. Postconference Br. at 7 (citing U.S. producers' questionnaire responses at IV-14); Conference Tr. at 104 (McGhee) (stating that demand for graphite electrodes is "closely linked to global steel production" and "rises and falls with electric arc furnace steel production"), 122 (McGhee) (stating that demand is "drive solely by demand from the steel sector").

[119] CR/PR at 2.1, 2.6; Conference Tr. at 50 (McCloy) (responding "{y}es {demand} can be cyclical" and that "{a}s the steel market improves, usually that helps the sales and the business for graphite electrodes"); Conference Tr. at 50 (Duenas) (stating that it was "correct" that demand for graphite electrodes was cyclical and that "you follow the cycles of the steel industry").

[120] CR/PR at Table 2.6.

[121] CR/PR at Table 2.6.

[122] Conference Tr. at 18, 53 (McCloy), 105 (McGhee).

[123] CR/PR at Tables 4.10, C.1.

[124] U.S. producers' reported U.S. shipments include the weight (quantity) and value of the pin, which were imported, as part of the entire finished electrode. However, the weight and value of the pin are also captured in U.S. import data. Accordingly, for the purposes of these preliminary determinations, in our analyses we have used adjusted U.S. shipment data that subtract the quantity and value of imported pins to avoid double counting. CR/PR at Table 4.10 note & Table C.1 n.2.

[125] CR/PR at 3.1, Table 3.1.

Tokai Carbon accounted for *** percent.[126] A third U.S. producer, GrafTech, produced LDGEs in the United States until June 2024, when it idled its graphitization operations.[127]

The domestic industry was the largest source of LDGEs throughout the POI. Its share of apparent U.S. consumption declined irregularly over the POI, rising from *** percent in 2023 to *** percent in 2024 and then decreasing to *** percent in 2025, for an overall decrease of *** percentage points.[128]

GrafTech ***.[129] In February 2024, GrafTech announced that it was laying off over 100 workers and suspending the majority of its U.S. production at its facility in St. Mary's, Pennsylvania.[130] After it suspended its U.S. production, ***.[131] In addition, in 2024 Tokai Carbon ***.[132] U.S. producer Resonac reports that over the past three years it has invested in a new finishing line and made several other updates to its equipment.[133]

U.S. producers' practical LDGE capacity decreased by *** percent during the POI, while LDGE production decreased by *** percent, resulting in a practical LDGE capacity utilization decrease of *** percentage points, from *** percent in 2023 to *** percent in 2025.[134] Petitioners claim that the domestic industry has sufficient installed capacity to supply the entire U.S. market, but has nonetheless lost market share to subject imports.[135] In addition, Petitioners contend that the domestic industry's practical capacity ***. They also assert that the domestic industry's capacity was reduced in 2025 after ***.[136]

Although cumulated subject imports were the third-largest source of supply to the U.S. market during the POI, their share of apparent U.S. consumption increased by *** percentage points during the POI, rising from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[137]

Imports from nonsubject countries were the second-largest source of LDGEs throughout the POI. Their share of apparent U.S. consumption increased irregularly by *** percentage

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[126] CR/PR at Table 3.1.

[127] CR/PR at 3.1 n.1; Pets. Postconference Br. at 7, Ex. 5, Declaration of Timothy Flanagan ("Flanagan Dec.") ¶¶ 3-5. GrafTech *** the Petition. CR/PR at Table 3.1.

[128] CR/PR at Tables 4.10, C.1.

[129] CR/PR at Table 3.4.

[130] CR/PR at Tables 3.3, 3.4; Pets. Postconference Br., Ex. 5, Flanagan Dec. ¶¶ 3-5.

[131] CR/PR at 3.1 n.1, Tables 3.3, 3.4; Pets. Postconference Br. at 7, Ex. 5, Declaration of Timothy Flanagan ("Flanagan Dec.") ¶¶ 3-5. After it idled production GrafTech ***. Pets. Postconference Br. at Ex. 5, Flanagan Dec. ¶ 2. *** *Id.* at ¶ 3; CR/PR at 1.14, 3.12 n.9. As discussed further in section VII.E, GrafTech reported that these changes in its activities were due to ***. CR/PR at Table 6.11.

[132] CR/PR at Table 3.4.

[133] Conference Tr. at 20-21 (Duenas).

[134] CR/PR at Tables 3.5, C.1.

[135] Pets. Postconference Br. at 9, Exs. 8-9.

[136] CR/PR at Table 3.4; Pets. Postconference Br. at 9; Conference Tr. at 20-21 (Duenas).

[137] CR/PR at Tables 4.10, C.1.

points during the POI, falling from *** percent in 2023 to *** percent in 2024 and rising to *** percent in 2025.[138] The largest nonsubject sources of LDGEs during the POI were Mexico, Spain, and France.[139] Former U.S. producer GrafTech *** and accounted for *** percent of nonsubject imports in 2025.[140]

All U.S. producers and importers reported that they had not experienced supply constraints after January 1, 2023.[141]

iii. Substitutability and Other Conditions

Based on the record in the preliminary phase of these investigations, we find that there is a moderately high degree of substitutability between cumulated subject imports and domestically produced LDGEs.[142] As discussed in Section VI.B. above, all U.S. producers and a majority of U.S. importers reported that subject imports from China and India are always or frequently interchangeable with each other and with the domestic like product.[143] Moreover, although customers may purchase in "batches" from one supplier, the record indicates that customers may qualify multiple producers, and the Lost Sales/Lost Revenue survey data indicate that purchasers can use both subject imports and domestically produced LDGEs.[144]

We also find that price is an important factor in LDGE purchasing decisions, among other factors. Purchasers responding to the Commission's Lost Sales/Lost Revenue survey generally ranked quality/performance/reliability, price/cost, and availability/supply/diversity and reliability of supply chain as being among the top factors influencing their purchasing decisions.[145] All U.S. producers reported that differences other than price were never

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[138] CR/PR at Tables 4.10, C.1

[139] CR/PR at 4.3.

[140] CR/PR at Table 3.2, 4.3 n.7, Table 4.1.

[141] CR/PR at 2.6.

[142] CR/PR at 2.8.

[143] CR/PR at Tables 2.9-2.10.

[144] CR/PR at 5.26, Tables 5.19-5.21 (10 of 11 purchasers reported buying subject imports instead of the domestic like product); Conference Tr. at 98-99 (Duenas) (explaining that customers "work in batches" from one producer); UKCG Postconference Br. at Appendix A at "Customer Request for Foreign-Made Graphite Electrode"). ***. CR/PR at Table 5.20.

[145] CR/PR at Table 2.8. Ten purchasers cited quality factors as top-three purchasing factors, while price factors and availability factors were each cited by eight purchasers as top-three purchasing factors. *Id*. Six purchasers rated quality/performance/reliability as the most important factor, and two purchasers each rated price/cost and availability/supply/diversity and reliability of supply chain as the most important factor. *Id.* The most commonly ranked second factors were quality/performance/reliability (three purchasers) and availability/supply/diversity and reliability of supply chain (three purchasers). *Id.* Price/cost was the most commonly cited third factor (five purchasers), followed by availability/supply/diversity and reliability of supply chain (three purchasers), and quality/performance/reliability (one purchaser). *Id.*

significant between the domestic like product and subject imports from each source.[146] While more mixed in their responses, a majority of U.S. importers nonetheless reported that there are only sometimes or never significant differences other than price between the domestic product and subject imports from China and India.[147] [148]

As explained above, domestically produced LDGEs and subject imports were sold to end users.[149]

LDGEs are primarily produced to order. U.S. producers reported that *** percent of their commercial shipments were produced to order, with lead times averaging *** days.[150] The remaining *** percent of their commercial shipments were sold from inventories, with lead times averaging *** days.[151] U.S. importers reported that *** percent of their commercial shipments were produced to order, with lead times averaging *** days.[152] They further reported that *** percent of their commercial shipments were sold from U.S. inventories, with lead times averaging *** days, and the remaining *** percent of commercial shipments were sold from foreign inventories, with lead times averaging *** days.[153]

U.S. producers reported selling most of their LDGEs under short-term contracts, with lesser but substantial quantities sold under annual contracts and long-term contracts, and smaller quantities sold ***.[154] Importers sold the vast majority of their LDGEs under short-term contracts, followed by ***, and smaller quantities ***.[155]

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[146] CR/PR at Table 2.11.

[147] CR/PR at Table 2.12. In comparing domestically produced LDGEs and subject imports from China, one importer reported that differences other than price are always significant, three reported that they are frequently significant, three reported that they are sometimes significant, and two reported that they are never significant. *Id.* For domestically produced LDGEs and subject imports from India, one importer reported that differences other than price are always significant, two reported that they are frequently significant, one reported that they are sometimes significant, and three reported that they are never significant. *Id.*

[148] UKCG maintains that LDGE customers value having diversity of supply and notes that U.S. producers import their LDGE pins, which it states are the most critical component of an electrode. Conference Tr. at 105-106 (McGhee); UKCG Postconference Br. at 16 & 22. In addition, UKCG states that customers appreciate LDGE producers having a technically integrated support model. UKCG Postconference Br. at 8-9. It also asserts that it offers a unique fully integrated reclamation and recycling service that recovers spent and partially consumed graphite electrodes from EAF steel producers, re-machines and reconditions the LDGE to specification, and then returns the LDGE to a productive use as a qualified electrode input. UKCG Postconference Br. at 18-20, 24.

[149] CR/PR at 2.3.

[150] CR/PR at 2.10.

[151] CR/PR at 2.10.

[152] CR/PR at 2.10.

[153] CR/PR at 2.10.

[154] CR/PR at 5.4 & Table 5.3.

[155] CR/PR at 5.4 & Table 5.3.

LDGEs are made from artificial graphite that is produced primarily from thermal graphitization of hydrocarbon materials: calcine petroleum needle coke or calcine pitch needle coke, and coal tar pitch.[156] The prices of petroleum needle coke fluctuated downwards beginning in July 2023, the first month for which data was available, increased in February 2025, and fluctuated upwards through January 2026, ending at a price that was *** percent higher than in July 2023.[157] Raw materials as a share of U.S. producers' cost of goods sold ("COGS") declined from 2023 to 2025, falling from *** percent in 2023 to *** percent in 2024 and *** percent in 2025, a level *** percentage points lower than in 2023.[158]

Throughout the POI, subject imports from China have been subject to a 25 percent duty *ad valorem* pursuant to Section 301 of the Trade Act of 1974.[159] Effective February 24, 2026, LDGEs originating in China and India are subject to an additional 10 percent duty *ad valorem* under Section 122 of the Trade Act of 1974.[160] [161]

C. Volume of Cumulated Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[162]

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[156] CR/PR at 5.1, Table 5.1.

[157] CR/PR at Table 5.1.

[158] CR/PR at Tables 6.1 & *calculated from* Table 6.1.

[159] 19 U.S.C. § 2411, et seq.; CR/PR 1.7 & n.14.

[160] 19 U.S.C. § 2132; CR/PR at 1.8 & n.15. Section 122 authorizes the President to impose a temporary import surcharge for a period not exceeding 150 days unless it is extended by an act of Congress. *Id.*

[161] Although LDGEs originating in and China and India were subject to additional tariffs under the International Emergency Economic Powers Act ("IEEPA"), effective February 20, 2026, all tariffs initiated under IEEPA were terminated. 50 U.S.C. § 1701, et seq.; CR/PR at 1.8. Effective February 4, 2025, LDGEs originating in China were subject to an additional 10 percent *ad valorem* duty under IEEPA. CR/PR at 1.8 & n.18. Effective March 4, 2025, that duty increased to 20 percent *ad valorem*; however, effective November 10, 2025, that duty was reduced to 10 percent. *Id.* Effective April 5, 2025, LDGEs originating in China were subject to a separate additional 10 percent *ad valorem* duty. *Id.* at 1.9. Effective April 9, 2025, the IEEPA tariffs for China were raised to 84 percent *ad valorem*, and were raised to 125 percent the next day. *Id.* at 1.9 & n.22. Effective May 14, 2025, the duty rate for tariffs initiated in April 2025 under IEEPA on products originating in China was reduced to 10 percent. *Id.* at 1.9 & n.21. With respect to subject imports from India, effective April 5, 2025, subject imports were subject to an additional 10 percent duty *ad valorem* pursuant to IEEPA. *Id.* at 1.8 & n.22. Effective April 9, 2025, India was instead assigned an individualized duty rate of 26 percent *ad valorem*. *Id.* at 1.9 & n.23. The next day, April 10, 2025, the individualized country duties were suspended and the additional rate under IEEPA for LDGEs originating in India was reduced to 10 percent. *Id.* Effective August 7, 2025, imports from India were subject to an additional *ad valorem* duty of 25 percent under IEEPA. *Id.* at 1.9 & n.24.

[162] 19 U.S.C. § 1677(7)(C)(i).

The volume of cumulated subject imports increased by *** percent over the POI, increasing from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025.[163] The volume of U.S. importers' U.S. shipments of subject imports increased by *** percent, from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025.[164] Cumulated subject imports as a share of apparent U.S. consumption increased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[165] These increases in cumulated subject import volume and U.S. market share occurred as apparent U.S. consumption declined by *** percent.[166] [167]

Based on the record of this preliminary phase of the investigations, we conclude that the volume of cumulated subject imports and the increase in that volume are significant, both in absolute terms and relative to consumption in the United States.

D. Price Effects of Cumulated Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether –

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[168]

As addressed in section VII.B.iii. above, we have found a moderately high degree of substitutability between the domestic like product and subject imports and that price is an important factor in purchasing decisions, among other factors.

We have examined several sources of data for our underselling analysis. The Commission collected quarterly quantity and f.o.b. pricing data on sales of four products

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[163] CR/PR at Table 4.2.

[164] CR/PR at Table C.1.

[165] CR/PR at Table 4.10.

[166] CR/PR at Table 4.10.

[167] UKCG contends that because its own volume of subject imports from China declined by 25 percent over the POI due to declining demand, subject import volumes overall could not have been significant. UKCG Postconference Br. at 5-6. However, our analysis must consider all cumulated subject imports, and the data indicate that the overall volume of cumulated subject imports increased by *** percent over the POI. CR/PR at Table 4.2.

[168] 19 U.S.C. § 1677(7)(C)(ii).

shipped by U.S. producers and importers to unrelated U.S. customers during the POI.[169] Two U.S. producers and four importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[170] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of LDGEs, *** percent of reported U.S. commercial shipments of subject imports from China, and *** percent of reported U.S. commercial shipments of subject imports from India from January 2023 to December 2025.[171]

These pricing data indicate that cumulated subject imports undersold domestically produced LDGEs in 25 of 26 quarterly comparisons, involving *** metric tons of reported subject import sales (corresponding to *** percent of the volume of subject imports in the pricing data), at margins ranging from *** to *** percent and averaging *** percent.[172] In the remaining quarterly comparison, *** metric tons of subject imports oversold domestically produced LDGEs by *** percent.[173]

The Commission also collected import purchase cost data from firms that imported these products for their own use or retail sale.[174] Two importers reported useable import purchase cost data on a landed duty basis ("LDP") for products 1 and 3 only, accounting for *** percent of reported imports from India.[175]

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[169] CR/PR at 5.5. The four pricing products were defined as follows: Product 1.-- UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin; Product 2.-- UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin; Product 3.-- UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin; and Product 4.-- UHP graphite electrodes, 700 mm (28 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin. *Id.*

[170] CR/PR at 5.5.

[171] CR/PR at 5.5. Pricing coverage is based on commercial shipments reported in questionnaires. Importer of LDGEs from India *** did not provide either commercial shipment or pricing data. *Id.* at 5.5 n.7.

Additionally, Importer *** reported that it acts as an independent, third-party importer of record service providing CBP compliance and facilitating logistics between Indian producer HEG and its end-customers, and that prices for LDGEs for these shipments are set directly between HEG and their customers. CR/PR at 5.5 n.5. Indian producer HEG accounted for *** percent of reported export shipments to the United States during the POI. CR/PR at Table 7.2. Importer *** reported that, consequently, it was unable to provide pricing or purchase cost data for these imports. *Id.* In any final phase of these investigations, we will endeavor to obtain pricing and/or purchase cost data accounting for a larger share of reported sales from India.

[172] CR/PR at 5.22, Table 5.13.

[173] CR/PR at 5.22, Table 5.13. The single instance of overselling was also the single available quarterly comparison involving subject imports from India. *Id.* at 5.22, Table 5.14.

[174] CR/PR at 5.14.

[175] CR/PR at 5.14. No importers reported purchase cost data for imports from China. *Id.* at 5.14 n.10.

LDP costs for subject imports were below the sales price for U.S.-produced product in all 5 instances, accounting for *** metric tons, with price-cost differentials ranging from *** to *** percent and averaging *** percent.[176]

We recognize that import purchase cost data may not reflect the total cost of importing. Therefore, we requested that importers provide additional information regarding the costs and benefits of directly importing LDGEs.[177] Neither importer reported incurring additional costs beyond LDP costs by importing LDGEs themselves rather than purchasing from a U.S. producer or U.S. importer.[178] One importer reported comparing the cost of importing to the cost of purchasing from both U.S. producers and importers in determining whether to import LDGEs; the other reported it did not make such comparisons.[179] [180] One importer reported that the import costs of LDGEs are lower than the price of purchasing LDGEs from a U.S. producer or importer excluding the additional costs associated with importing.[181]

We have also considered purchasers' responses to the lost sales/lost revenue survey. Of the 11 responding purchasers, 10 reported that they had purchased subject imports instead of U.S.-produced LDGEs during the POI.[182] These 10 purchasers accounted for *** percent of responding purchasers' purchases and imports over the period, equivalent to *** percent of apparent U.S. consumption over the period.[183] All 10 of these purchasers reported that subject import prices were lower than those of U.S.-produced LDGEs, and five of these purchasers reported that price was a primary reason for the decision to purchase subject imports rather than U.S.-produced LDGEs.[184] These five firms estimated that they, in total, purchased *** metric tons of subject imports instead of U.S.-produced LDGEs primarily because of the lower price of the subject imports.[185] This volume of sales lost to subject imports is equivalent to approximately *** percent of responding purchasers' reported purchases/imports of subject imports over the POI and approximately *** percent of total reported U.S. shipments of

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[176] CR/PR at 5.23, Table 5.17.

[177] CR/PR at 5.14.

[178] CR/PR at 5.14.

[179] CR/PR at 5.14.

[180] Importers identified benefits from importing LDGEs themselves, which included having an additional source for smaller 12-inch diameter electrodes and ensuring the continuity of operations for U.S. steel producers when the availability of domestic product is limited or lead times are extended. CR/PR at 5.14.

[181] CR/PR at 5.14. As noted above, no additional costs were reported beyond LDP costs. *Id.* Neither of the responding importers reported the amounts they saved by importing LD graphite electrodes rather than purchasing from a U.S producer or importer. *Id.*

[182] CR/PR at 5.26.

[183] CR/PR at Tables 5.19 and C.1.

[184] CR/PR at 5.26.

[185] CR/PR at Table 5.20.

cumulated subject imports.[186] Other purchasers identified quality, technical services, delivery requirements, and diverse sourcing to ensure stable supply as non-price reasons for purchasing imported rather than U.S.-produced LDGEs.[187]

Based on the foregoing, including the moderately high degree of substitutability between domestically produced LDGEs and cumulated subject imports from China and India, the importance of price in purchasing decisions for LDGEs, the available pricing and purchase cost data, and the lost sales information, we find, for purposes of these preliminary determinations, that underselling by cumulated subject imports from China and India was significant. We also find that the underselling caused subject imports to gain sales and market share from the domestic industry. The domestic industry lost *** percentage points of market share over the POI, while cumulated subject imports gained *** percentage points.[188]

We have also considered whether subject imports depressed domestic prices or prevented price increases for domestically produced LDGEs which otherwise would have occurred to a significant degree. LDGE prices decreased steadily for both domestically produced LDGEs and subject imports.[189] From beginning to end of the POI, prices of domestically produced LDGEs decreased by *** percent for pricing product 1, by *** percent for pricing product 2, by *** percent for pricing product 3, and by *** percent for pricing product 4.[190] Prices of subject imports decreased by *** percent for pricing product 1 and by *** percent for pricing product 3.[191] [192]

Three responding purchasers reported that U.S. producers had reduced prices in order

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[186] The volume of lost sales is also equivalent to approximately *** percent of the domestic industry's U.S. shipments during the POI, and approximately *** percent of apparent U.S. consumption during the POI. *Derived from* CR/PR at Tables 4.10, 5.19-5.20.

[187] CR/PR at 5.26.

[188] CR/PR at Table 4.10.

[189] CR/PR at 5.19, Table 5.10, Figures 5.8-5.9.

[190] CR/PR at 5.19, Table 5.10.

[191] CR/PR at 5.19, Table 5.10. No subject import pricing data was reported for pricing product 2 and only one quarter of pricing was provided for pricing product 4. *Id.* at Tables 5.5, 5.7. There was insufficient purchase cost data reported to determine trends. *Id*. at 5.19.

[192] UKCG argues that the record does not support a finding of price suppression or depression because its prices incorporate services along with the LDGEs themselves and thus are higher than prices for domestically produced LDGEs. UKCG Postconference Br. at 21. Specifically, it claims that its LDGE refurbishing program and other technical services, not low prices, attract customers, and that its prices are frequently higher than those of domestic producers. *Id.* at 9-10, 18-20. However, as discussed above, the domestic industry has provided evidence indicating that reclamation services constitute a small portion of any given sale. We also note that cumulated subject imports undersold domestic producers in almost every quarterly comparison. UKCG's sales of the pricing products ***. *Derived from* UKCG's Importer Questionnaire at III-2b; CR/PR at 5.4-5.7. We will examine further in any final phase of these investigations the importance of services offered by LDGE suppliers and whether firms' reported pricing data include any bundled services.

to compete with lower-priced imports from China and India, while seven reported that they did not know if this had occurred. The reported estimated price reductions ranged from *** to *** and averaged *** percent.[193] In addition, Petitioners provided documentary evidence of pricing pressures by subject imports.[194]

Reflecting the domestic industry's declining prices, its net sales unit value decreased throughout the POI and by substantially more than the decrease in its per-unit cost of goods sold ("COGS").[195] The domestic industry's per-unit raw material costs decreased by $*** per metric ton (*** percent) from 2023 to 2025, and its per-unit total COGS decreased by $*** per metric ton (*** percent).[196] The domestic industry's net sales unit value decreased by $*** per metric ton (*** percent) from 2023 to 2025.[197] Thus, the declines in the domestic industry's net sales unit values outpaced the decrease in its unit COGS. As a result, the industry's COGS to net sales ratio increased by *** percentage points over the POI, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[198] [199]

Factors other than low-priced subject imports do not appear to explain the extent of the domestic industry's price declines. While apparent U.S. consumption declined by *** percent from 2023 to 2025, the industry's prices declined by much more than its costs from 2023 to 2024 when apparent U.S. consumption was relatively flat (declining by just *** percent).[200] While nonsubject imports were larger in volume than cumulated subject imports and gained more market share than cumulated subject imports did during the POI, importers' U.S. shipments of nonsubject imports had higher average unit values ("AUVs") than their shipments

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[193] CR/PR at 5.26, Table 5.22. Responding purchaser ***. *Id.*

[194] *See* Petitioners' Postconference Brief at Ex. 10.

[195] CR/PR at Table 6.2.

[196] CR/PR at Table 6.2. Some producers treated pins as raw materials in their financial reporting in these preliminary phase investigations. Petitioners reported the cost of connecting pins for LDGEs ranged from between *** and *** percent, while UKCG reported that connecting pins account for between *** percent of the total system cost. CR/PR at 5.1 (citing Conference Tr. at 79 (McCloy and Duenas), Petitioners' Postconference Brief at Ex. 1 at 18-19, and UKCG's Postconference Brief at 8).

[197] CR/PR at Tables 6.2.

[198] CR/PR at Tables 6.1, C.1.

[199] UKCG argues that pricing in the LDGE market is influenced by needle coke costs, energy inputs, and global supply and demand conditions. UKCG Postconference Br. at 21. Our record shows that the domestic industry's net sales unit value declined by substantially more than its per-unit COGS throughout the POI. CR/PR at Table 6.2. As discussed below, declining apparent U.S. consumption does not appear to explain the extent of declining domestic prices. In any final phase of these investigations, we intend to further investigate the effects of global supply and demand on U.S. prices.

[200] CR/PR at Tables 6.2, C.1. Additionally, market participants' responses do not indicate that they perceived a substantial decline in U.S. demand during the POI, as all U.S. producers reported that demand fluctuated upwards while importers' responses were mixed. *Id*. at Table 2.6.

of cumulated subject imports throughout the POI.[201] The AUVs of importers' U.S. shipments of nonsubject imports were also higher than the domestic industry's U.S. shipment AUVs throughout the POI.[202]

Based on the foregoing, we find for purposes of these preliminary phase investigations that cumulated subject imports depressed prices for the domestic like product to a significant degree.

In sum, for purposes of these preliminary investigations, we find that cumulated subject imports significantly undersold the domestic like product, which contributed to subject imports gaining market share at the expense of the domestic industry and depressed prices for the domestic like product to a significant degree. Consequently, we find that subject imports had significant price effects.

E. Impact of Cumulated Subject Imports

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development ("R&D"), and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[203]

Almost all of the domestic industry's trade, employment, and financial indicators worsened during the POI. The domestic industry's practical LDGE capacity decreased by *** percent, from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025.[204] Its production of LDGEs decreased by *** percent, from *** metric tons in 2023 to

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[201] CR/PR at Table C.1.

[202] CR/PR at Table C.1. For comparison, U.S. producers' U.S. shipment AUVs were $*** per metric ton in 2023, $*** per metric ton in 2024, and $*** per metric ton in 2025; cumulated subject imports' U.S. shipment AUVs were $*** per metric ton in 2023, $*** in 2024, and $*** per metric ton in 2025; and nonsubject imports' U.S. shipment AUVs were $*** per metric ton in 2023, $*** per metric ton in 2024, and $*** per metric ton in 2025. *Id.* While there may be product mix issues when comparing AUVs from different sources, the available data do not indicate that nonsubject imports were present at low prices in the U.S. market.

[203] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act ("TPEA") of 2015, Pub. L. 114-27.

[204] CR/PR at Table 3.5.

*** metric tons in 2024 and *** metric tons in 2025.[205] The industry's capacity utilization decreased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[206]

The domestic industry's adjusted U.S. shipments decreased irregularly by *** percent, increasing from *** metric tons in 2023 to *** metric tons in 2024, then decreasing to *** metric tons in 2025.[207] The industry's share of apparent U.S. consumption decreased irregularly by *** percentage points, increasing from *** percent in 2023 to *** percent in 2024, then decreasing to *** percent in 2025.[208]

The domestic industry's end-of-period inventories decreased by *** percent, from *** metric tons in 2023 to *** metric tons in 2024 and *** metric tons in 2025.[209] As a share of total shipments, the domestic industry's end-of-period inventories decreased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[210]

The domestic industry's employment-related indicators all worsened over the POI. The number of production and related workers ("PRWs") decreased by *** percent, from *** PRWs in 2023 to *** PRWs in 2024 and *** PRWs in 2025.[211] The industry's total hours worked decreased by *** percent, from *** hours in 2023 to *** hours in 2024 and *** hours in 2025.[212] Wages paid decreased irregularly by *** percent, increasing from $*** in 2023 to $*** in 2024, then decreasing to $*** in 2025.[213] Productivity decreased by *** percent, from *** metric tons per 1,000 hours in 2023 to *** metric tons per 1,000 hours in 2024 and *** metric tons per 1,000 hours in 2025.[214]

The domestic industry's financial performance worsened substantially over the POI. The industry's net sales revenues decreased by *** percent, from $*** in 2023 to $*** in 2024 and $*** in 2025.[215] Its gross profit decreased by *** percent, from $*** in 2023 to $*** in 2024 and $*** in 2025.[216] The industry's operating income decreased by $***, from $*** in 2023 to *** in 2024 and *** in 2025.[217] The industry's net income decreased by $***, from $*** in

[205] CR/PR at Table 3.5.
[206] CR/PR at Table 3.5.
[207] CR/PR at Table 4.10.
[208] CR/PR at Table 4.10.
[209] CR/PR at Table 3.10.
[210] CR/PR at Table 3.10.
[211] CR/PR at Table 3.11.
[212] CR/PR at Table 3.11.
[213] CR/PR at Table 3.11.
[214] CR/PR at Table 3.11.
[215] CR/PR at Table 6.1.
[216] CR/PR at Table 6.1.
[217] CR/PR at Table 6.1.

2023 to $*** in 2024 and *** in 2025.[218] The industry's operating income as a ratio to net sales decreased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[219] The industry's net income as a ratio to net sales decreased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[220]

The domestic industry's capital expenditures decreased irregularly by *** percent, decreasing from $*** in 2023 to $*** in 2024, then increasing to $*** in 2025.[221] U.S. producers' research and development expenses never exceeded $*** per year.[222] The domestic industry's return on assets decreased by *** percentage points, from *** percent in 2023 to *** percent in 2024 and *** percent in 2025.[223]

In addition, responding U.S. producers reported that subject imports had actual and/or anticipated negative effects on investment, growth and development over the POI.[224]

As discussed above, cumulated subject import volume and market share increased significantly and at the expense of the domestic industry over the POI, driven by significant underselling, and this had the effect of depressing domestic prices to a significant degree. As the industry lost market share to low-priced subject imports and its prices declined, almost all measures of the domestic industry's condition declined and it was *** for the last two years of the POI.[225] Consequently, for purposes of the preliminary phase of these investigations, we find that cumulated subject imports had a significant adverse impact on the domestic industry.

We have also considered whether there are other factors that may have had an impact on the domestic industry to ensure that we are not attributing injury from such other factors to subject imports. Nonsubject imports' share of apparent consumption increased irregularly, gaining *** percentage points of market share from 2023 to 2025.[226] However, this does not diminish the adverse impact of cumulated subject imports on the domestic industry. Furthermore, nonsubject imports do not appear to account for the depressing effects on U.S. prices caused by increasing volumes of low-priced subject imports; as discussed above in section VII.D, throughout the POI, nonsubject imports' AUVs were higher than subject imports' and U.S. producers' AUVs and purchaser responses confirm that U.S. producers reduced their

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[218] CR/PR at Table 6.1.
[219] CR/PR at Table 6.1.
[220] CR/PR at Table 6.1.
[221] CR/PR at Table 6.5.
[222] CR/PR at 6.15.
[223] CR/PR at Table 6.8.
[224] CR at Table 6.11. Of particular note, GrafTech reported as follows: *** *Id*.
[225] CR/PR at Tables 3.7, 3.9-3.11, 4.10, 6.1, 6.5, 6.8, C.1.
[226] CR/PR at Tables 4.10, C.1.

prices in order to compete with low-priced subject imports.[227] [228]

UKCG claims that GrafTech displaced other market participants between the fourth quarters of 2024 and 2025.[229] In 2024, GrafTech switched from *** and accounted for *** percent of nonsubject imports in 2025.[230] However, GrafTech reported that this change ***.[231] Moreover, the share of the U.S. market served by GrafTech, whether through domestic production or nonsubject imports, *** percentage points from 2023 to 2025 and does not explain the shift in market share from the domestic industry to cumulated subject imports over the POI.[232] Additionally, while a portion of the decline in the domestic industry's performance is attributable to GrafTech's idling of its domestic production operations in 2024, the domestic producers other than GrafTech also reported declines. The market share held by the other two U.S. producers declined by *** percentage points from 2023 to 2025, their number of PRWs declined by *** percent, and their profitability declined, reaching a combined operating *** of $*** (*** percent of net sales) in 2025.[233]

UKCG asserts that the decrease in its own imports of LDGEs from China reflects the decrease in U.S. demand over the POI, and that this decrease in demand, rather than the volume of subject imports, drove any injury experienced by the domestic industry.[234] We recognize that apparent U.S. consumption declined by *** percent over the POI, almost entirely from 2024 to 2025.[235] However, the domestic industry's prices and AUVs began declining

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[227] CR/PR at Tables 5.22, C.1.

[228] The law does not require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry. S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47. The existence of injury caused by other factors does not compel a negative determination; the Commission need only find that the subject imports have been more than an "incidental, tangential, or trivial" cause of injury to the domestic industry. *See Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1381 (Fed. Cir. 2003). Here, the *** percentage points of market share that cumulated subject imports gained from the domestic industry is a significant adverse impact distinct from any impact from nonsubject imports. Purchasers also confirm the adverse impact of low-priced subject imports on the domestic industry. CR/PR at Tables 5.20-5.22.

[229] UKCG Postconference Br. at 21.

[230] CR/PR at.1 n.1, 4.3 n.7, Table 4.1.

[231] CR/PR at Table 6.11; Pets. Postconference Br. at Ex. 5.

[232] In 2023, GrafTech supplied *** percent of apparent U.S. consumption through its domestic production and nonsubject imports; this share *** percent in 2024, and *** percent in 2025. *Derived from* GrafTech's U.S. Producer Questionnaire Response at II-8; GrafTech's U.S. Importer Questionnaire Response at II-7a; CR/PR at Table C.1. GrafTech supplied *** percent of the U.S. market in 2023 from its U.S. production and *** percent in 2025. *Derived from* GrafTech's U.S. Producer Questionnaire Response at II-8; CR/PR at Table C.1. In contrast, the domestic industry as a whole lost *** percentage points of market share from 2023 to 2025. CR/PR at Table C.1.

[233] *Derived from* CR/PR at Table 6.3; U.S. Producer Questionnaire Responses at II-8, II-12.

[234] UKCG Postconference Br. at 6, 21-23.

[235] CR/PR at Table 4.10.

between 2023 and 2024, when apparent U.S. consumption was relatively flat (declining by only *** percent).[236] Moreover, the decline in demand cannot explain the magnitude of the industry's worsening condition or cumulated subject imports' market share gains at the expense of the domestic industry.

In sum, based on the record in the preliminary phase of these investigations, we conclude that cumulated subject imports had a significant impact on the domestic industry.

VIII. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of LDGEs from China and India that are allegedly sold in the United States at LTFV and subsidized by the governments of China and India.

[236] CR/PR at Tables 5.11, 6.2, C.1.

Part 1: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Resonac Graphite America Inc. ("Resonac"), Ridgeville, South Carolina; and Tokai Carbon GE LLC ("Tokai"), Charlotte, North Carolina on February 24, 2026, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of large diameter graphite electrodes ("LD graphite electrodes")[1] from China and India. Table 1.1 presents information relating to the background of these investigations.[2] [3]

Table 1.1 LD graphite electrodes: Information relating to the background and schedule of this proceeding

Effective date	Action
February 24, 2026	Petitions filed with Commerce and the Commission; institution of the Commission investigations (91 FR 9885, February 27, 2026)
March 17, 2026	Commission's conference
March 16, 2026	Commerce's notices of initiation of its countervailing duty investigations (91 FR 13577, March 20, 2026) and its LTFV investigations (91 FR 13581, March 20, 2026)
April 9, 2026	Commission's vote
April 10, 2026	Commission's determinations
April 17, 2026	Commission's views

[1] See the section entitled "The subject merchandise" in Part 1 of this report for a complete description of the merchandise subject in this proceeding.

[2] Pertinent Federal Register notices are referenced in appendix A and may be found at the Commission's website (www.usitc.gov).

[3] A list of witnesses appearing at the conference is presented in appendix B of this report.

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission—

> shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that—[4]

> In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.. . .In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . .(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative

[4] Amended by PL 114—27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—[5]

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

Organization of report

Part 1 of this report presents information on the subject merchandise, alleged subsidy rates/dumping margins, and domestic like product. Part 2 of this report presents information on conditions of competition and other relevant economic factors. Part 3 presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts 4 and 5 present the volume of subject imports and pricing of domestic and imported products, respectively. Part 6 presents information on the financial experience of U.S. producers. Part 7 presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

[5] Amended by PL 114—27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Market summary

LD graphite electrodes are generally used in the production and recycling of steel. The leading U.S. producers of LD graphite electrodes are Resnoac and Tokai, while leading producers of LD graphite electrodes outside the United States include Fangda Carbon New Material Co., Ltd. and Jialong New Materials of China and Graphite India Limited ("Graphite India") and HEG Ltd. ("HEG") of India. The leading U.S. importers of LD graphite electrodes from China are ***, while the leading importers of LD graphite electrodes from India are ***. Leading importers of product from nonsubject countries (primarily Mexico, Spain, and France) include ***. U.S. purchasers of LD graphite electrodes are firms that produce steel; leading purchasers include ***.

Apparent U.S. consumption of LD graphite electrodes totaled approximately *** in 2025. Currently, two firms are known to produce LD graphite electrodes in the United States.[6] U.S. producers' U.S. shipments of LD graphite electrodes totaled *** in 2025, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value, as adjusted.[7] U.S. imports from subject sources totaled *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** percent of apparent U.S. consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, table C.1. The Commission's questionnaires collected data for the years 2023 to 2025. Except as

[6] During the 2023 to 2025 period, one additional firm (GrafTech) produced LD graphite electrodes in the United States. GrafTech idled graphitization operations of LD graphite electrodes at its St Marys facility in June 2024. GrafTech ***. Petition, p. 3; Petitioners' postconference brief, Exhibit 5. See Parts 3 and 4 of this report for further details.

[7] Producer data ("U.S. producers' U.S. shipments") include the weight (quantity) and value of the pinning system as part of the entire finished electrode. However, the weight and value of the pin are also captured in U.S. import data. Accordingly, the quantity and value of imported pin were subtracted from the producer data to avoid double counting. These data are identified as "adjusted U.S. shipments" in Part 4 of this report and appendix C.

noted, U.S. industry data are based on questionnaire responses of three firms that accounted for all known U.S. production of LD graphite electrodes during 2023 to 2025. U.S. imports are based on questionnaire data.

Previous and related investigations

LD graphite electrodes have not been the subject of prior countervailing and/or antidumping duty investigations in the United States. However, the Commission has conducted an investigation regarding so-called “small diameter” graphite electrodes. In 2008, small diameter graphite electrodes from China were subject to an antidumping duty investigation. Following affirmative determinations by Commerce[8] and the Commission,[9] an antidumping duty order was published on U.S. imports of small diameter graphite electrodes from China.[10]

Nature and extent of alleged subsidies and sales at LTFV

Alleged subsidies

On March 20, 2026, Commerce published a notice in the Federal Register of the initiation of its countervailing duty investigation on LD graphite electrodes from China and India. Commerce initiated CVD investigations on 28 programs in China and on 30 programs in India.[11]

Alleged sales at LTFV

On March 20, 2026, Commerce published a notice in the Federal Register of the initiation of its antidumping duty investigations on LD graphite electrodes from China and India.[12] Commerce has initiated antidumping duty investigations based on estimated dumping margins for large diameter graphite electrodes for each of the countries covered by the initiation as follows: (1) China (Brazil surrogate)—44.71 to 116.64 percent; (2) China (Malaysia surrogate) 38.33 to 98.79 percent; (3) China (Turkey surrogate) 77.59 to 146.72 percent; and (4) India—42.59 to 73.40 percent.

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[8] 74 FR 2049, January 14, 2009.

[9] 74 FR 8568, February 25, 2009.

[10] 74 FR 8775, February 26, 2009. The order is currently active following affirmative first, second, and third five-year reviews by both Commerce and the Commission. 90 FR 42738, September 4, 2025.

[11] For further information on the alleged subsidy programs see Commerce’s notice of initiation and related CVD Initiation Checklist. 91 FR 13577, March 20, 2026.

[12] 91 FR 13581, March 20, 2026.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[13]

> *The merchandise covered by these investigations includes all large diameter graphite electrodes of any length, whether or not finished, of a kind used in furnaces, with a nominal or actual diameter exceeding 425 millimeters (16.7 inches), and whether or not attached to a graphite pin joining system or any other type of joining system or hardware. The merchandise covered by these investigations also includes graphite pin joining systems (commonly referred to as pins or nipples) for large diameter graphite electrodes, of any length, and with a minimum diameter of 228.6 mm (9 inches) at its widest transverse cross-section, whether or not finished, of a kind used in furnaces, and whether or not the graphite pin joining system is attached to, sold with, or sold separately from, the large diameter graphite electrode. Unfinished large diameter graphite electrodes are graphitized electrodes that have not undergone final machining. For purposes of these investigations, the country of origin is determined by the country of graphitization.*
>
> *Excluded from the scope of these investigations are large diameter graphite electrodes that are subject to the existing antidumping duty order on Small Diameter Graphite Electrodes from the People's Republic of China. See Antidumping Duty Order: Small Diameter Graphite Electrodes from the People's Republic of China, 74 FR 8775 (February 26, 2009) (SDGE China AD Order) due to an affirmative determination of circumvention that imports of graphite electrodes from the People's Republic of China, produced and/or exported by Sinosteel Jilin Carbon Co., Ltd. and Jilin Carbon Import & Export Company (collectively, Jilin Carbon), with an actual or nominal diameter of 17 inches and otherwise meeting the description of the scope of the SDGE China AD Order constitute merchandise subject to the SDGE China AD Order. See Small Diameter Graphite Electrodes from the People's Republic of China: Affirmative Final Determination of Circumvention of the Antidumping Duty Order and Rescission of Later-Developed Merchandise Anticircumvention Inquiry,78 FR 56864 (September 16, 2013). In the case of graphite electrodes entering the United States determined to be subject to the SDGE China AD Order, such order controls. In the case of graphite electrodes entering the United States meeting the scope definition of these investigations and not covered by the scope of the SDGE China AD Order, the scope of these investigations controls.*

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[13] 91 FR 13577, March 20, 2026.

Tariff treatment

Based upon the scope proposed by the Petitioners, information available to the Commission indicates that the merchandise subject to these investigations is typically imported under statistical reporting number 8545.11.0020 of the Harmonized Tariff Schedule of the United States ("HTS"). The general rate of duty is free for HTS subheading 8545.11.00.[14] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Below is a summary of additional tariffs applied to LD graphite electrodes from China and India. Table 1.2 provides a summary of additional tariffs in place as of April 3, 2026. Historical information is summarized beneath the table.

Table 1.2 LD graphite electrodes: Additional tariffs on imports originating in China and India, as of April 3, 2026

Duty rates in percent ad valorem

Additional tariff	India	China
Section 301	NA	25
Section 122	10	10
Total additional ad valorem rate	10	35

Source: Federal Register notices and other sources cited in this section (Tariff treatment).

Note: For the purposes of this table, "not applicable" is shown as "NA." This applies when the subject product from that subject country is not subject to the tariff for any reason.

Note: Duty rates above are for products imported under 8545.11.0020. Duty rates in the table reflect the duty rates as of the writing of this report. See the text below for historical changes to the additional tariffs.

Section 301 tariffs

Effective September 24, 2018, LD graphite electrodes originating in China were subject to an additional 10 percent ad valorem duty under section 301 of the Trade Act of 1974. Effective May 10, 2019, the section 301 duty for LD graphite electrodes increased to 25 percent.[15]

[14] Subject merchandise may also be imported under secondary statistical reporting numbers 3801.10.5090 and 3801.90.0050. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 38.4 and 85.86.

[15] 83 FR 47974, September 21, 2018; 84 FR 20459, May 9, 2019. See also HTS headings 9903.88.03 and 9903.88.04 and U.S. notes 20(e), 20(f), and 20(g) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.99 to 99.3.124, 99.3.463. Goods exported from China to the United States prior to May 10, 2019, and entering the United States prior to June 1, 2019, were not subject to the escalated 25 percent duty (84 FR 21892, May 15, 2019).

Section 122 tariffs

Effective February 24, 2026, LD graphite electrodes originating in China and India were subject to an additional 10 percent ad valorem duty under section 122 of the Trade Act of 1974.[16]

Tariffs initiated under the International Emergency Economic Powers Act ("IEEPA")[17]

Effective February 20, 2026, all tariffs initiated under IEEPA were terminated. Below is a history of the IEEPA tariffs relevant to LD graphite electrodes originating in China and India that were in effect until February 20, 2026, unless otherwise noted.[18]

Country-specific IEEPA tariffs (historic)

Effective February 4, 2025, LD graphite electrodes originating in China were subject to an additional 10 percent ad valorem duty under IEEPA, and on March 4, 2025, that additional duty increased to 20 percent ad valorem. However, effective November 10, 2025, that additional duty was reduced back to 10 percent.[19]

Effective August 27, 2025, LD graphite electrodes originating in India were subject to an additional 25 percent ad valorem duty under IEEPA. Effective February 7, 2026, the additional tariff specific to India was terminated.[20]

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[16] Section 122 authorizes the President to impose a temporary import surcharge for a period not exceeding 150 days unless such period is extended by an Act of the Congress. 91 FR 9339, February 25, 2026. See also HTS heading 9903.03.01 and U.S. note 2(aa) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.49 to 99.3.59, 99.3.410.

[17] Multiple tariffs were enacted under the authority of the International Emergency Economic Powers Act ("IEEPA"), including tariffs that applied to countries that may not be subject in this proceeding. Tariffs specific to Canada, China, and Mexico were initiated in February 2025. Tariffs initiated in April 2025 under IEEPA were applied globally. Tariffs specific to Brazil were initiated in July 2025. Tariffs specific to India were initiated in August 2025 and terminated effective February 7, 2026. Tariffs under IEEPA were amended over time. All tariffs initiated under IEEPA were terminated effective February 20, 2026. 91 FR 9437, February 25, 2026.

[18] 91 FR 9437, February 25, 2026.

[19] 90 FR 9121, February 7, 2025; 90 FR 11426, March 6, 2025; 90 FR 11463, March 7, 2025; 90 FR 50725, November 7, 2025. See also HTS heading 9903.01.20 and U.S. note 2(s) and HTS heading 9903.01.24 and U.S. note 2(u) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.3 to 99.3.4 and 99.3.374 to 99.3.375.

[20] 90 FR 38701, August 11, 2025; 91 FR 6501, February 11, 2026. See also HTS headings 9903.01.84, 9903.01.85, 9903.01.86, 9903.01.87, 9903.01.88, and 9903.01.89 and U.S. note 2(z) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.48 to 99.3.49 and 99.3.387 to 99.3.388.

Tariffs initiated in April 2025 under IEEPA (historic)

Effective April 5, 2025, LD graphite electrodes originating in China were subject to an additional 10 percent ad valorem duty as part of tariffs initiated in April 2025 under IEEPA. That duty rose to 84 percent ad valorem effective April 9, 2025, and rose again to 125 percent effective April 10, 2025. However, effective May 14, 2025, the duty rate for tariffs initiated in April 2025 under IEEPA on products originating in China was reduced to 10 percent.[21]

Effective April 5, 2025, LD graphite electrodes originating in India were subject to an additional 10 percent ad valorem duty as part of tariffs initiated in April 2025 under IEEPA. Effective April 9, 2025, India was instead assigned an individualized country duty of 26 percent ad valorem. However, effective April 10, 2025, the individualized country duties were suspended and the additional duty rate as part of tariffs initiated in April 2025 under IEEPA for LD graphite electrodes originating in India was returned to 10 percent.[22] Effective August 7, 2025, India was assigned an individualized country duty of 25 percent.[23]

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[21] For China, the duty as part of tariffs initiated in April 2025 under IEEPA was in addition to the 10 percent ad valorem duty under IEEPA that went into effect on November 10, 2025. 90 FR 15041, April 7, 2025; 90 FR 15509, April 14, 2025; 90 FR 15625, April 15, 2025; 90 FR 21831, May 21, 2025; 90 FR 39305, August 14, 2025; 90 FR 50729, November 7, 2025. See also HTS headings 9903.01.25 and 9903.01.63 and U.S. note 2(v) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.4 to 99.3.41, 99.3.375, and 99.3.382.

[22] Individualized country duties as part of tariffs initiated in April 2025 under IEEPA for all countries other than China were suspended April 10, 2025, until August 7, 2025. 90 FR 15041, April 7, 2025; 90 FR 15625, April 15, 2025; 90 FR 30823, July 10, 2025; 90 FR 37963, August 6, 2025. See also HTS headings 9903.01.25 and 9903.01.55 and U.S. note 2(v) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.4 to 99.3.41, 99.3.375, and 99.3.380.

[23] 90 FR 37963, August 6, 2025. See also HTS heading 9903.02.26 and U.S. note 2(v) to subchapter 3 of chapter 99 and related tariff provisions for this duty treatment. USITC, HTS (2026) Revision 4, Publication 5711, February 2026, pp. 99.3.4 to 99.3.41, and 99.3.395.

The product

Description and applications

LD graphite electrodes are cylindrical forms of artificial graphite exceeding 425 millimeters (16.7 inches), both finished and unfinished, sold with or without a graphite pin joining system (figure 1.1). These electrodes are produced primarily from thermal graphitization of calcined petroleum needle coke, calcined pitch needle coke, and coal tar pitch.[24] Many LD graphite electrodes use premium needle coke exclusively, but some use a blend of primarily needle coke with some additional anode-grade petroleum coke.[25]

Figure 1.1 LD graphite electrodes

Source: Resonac, "Product Details," accessed March 6, 2026.
https://www.rgj.resonac.com/en/products/detail.html.

LD graphite electrodes vary in diameter and length. The most common diameter size is 24 inches, but some steel mills use electrodes as small as 18 inches or as large as 32 inches in diameter, with sizes standardized in two-inch increments.[26] LD graphite electrode lengths vary as well. The most common lengths are 96 inches and 110 inches.[27]

LD graphite electrodes are typically used to conduct electricity, generating heat to melt scrap metal, iron ore, and other raw materials in steel making or refining processes. These electrodes are used both in electric arc furnace (EAF) applications for steel making, and in higher power output ladle refining applications to support large steel melting operations.[28]

LD graphite electrodes are generally sold directly to the end user. LD graphite electrodes are almost always sold to the end user fitted with a graphite pin joining system, consisting of a

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[24] Petition, p. 6.
[25] Petition, p. 8.
[26] Petition, p. 6 to 7; Petitioner postconference brief, pp. 7 to 8.
[27] Conference transcript, p. 90 (McCloy).
[28] Petition, p. 6; conference transcript, p. 10 (McCloy).

threaded pin and complementary socket in the LD graphite electrode end, both usually either three or four threads per inch.[29] The pins used in these systems are typically produced separately. Both petitioners make their pins outside the United States and import them. Petitioners identified no U.S. pin production.[30]

LD graphite electrodes are made to the specifications of the purchaser, including diameter, length, joining system, and length of connecting pin. An EAF requires an LD graphite electrode with particular specifications, and cannot use a different size graphite electrode without significant modification to the furnace.[31] While an EAF can generally use any LD graphite electrode that meets its specifications and standards, they generally prefer to use long runs of graphite electrodes from the same supplier, rather than interspersing graphite electrodes from different suppliers, because there may be slight differences within specifications between electrodes made by different suppliers.[32] This preference follows IEC 60239:2005, which recommends not mixing electrodes and pins from different sources because differences in raw materials and production techniques may lead to differences in thermal behavior.[33]

To generate heat, the electrode is lowered into an alternating current (AC) or direct current (DC) EAF or ladle furnace and an electric current is run through the electrode. Electricity then passes through the graphite electrodes at very high amperes, creating an electric arc between the electrode and the melt material. A DC furnace has a single column of two or more LD graphite electrodes, while an AC furnace typically uses three columns (figure 1.2). Artificial graphite connecting pins, which are threaded at both ends, connect the electrodes together. The electrodes are continuously consumed, exiting the furnace as carbon monoxide and carbon dioxide gases.[34] Using all or almost all petroleum or pitch needle coke slows the consumption rate of LD graphite electrodes during the melting process.[35]

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[29] Petition, p. 10.
[30] Conference transcript, p. 42 (Luberda); UKCG's postconference brief, p. 3.
[31] Conference transcript, p. 12, 64 (McCloy).
[32] Conference transcript, pp. 98 to 99 (Duenas) and 115 (McGhee).
[33] UKCG's postconference brief, p. 11.
[34] Petition, p. 7.
[35] Petition, p. 16.

Figure 1.2 An electric arc furnace (three columns of LD graphite electrodes in the center)

Source: Nucor, "The Circularity in Steel Series, Part 3: Benefits of Electric Arc Furnace (EAF) Steelmaking," accessed March 9, 2026.

The amount of current an electrode can carry is determined by the grade of coke used in the production process, the diameter, and other characteristics. LD graphite electrodes can carry from 25,000 to 160,000 amps depending on the grade.[36] LD graphite electrodes are most frequently produced to the Ultra High Power ("UHP") standard, but ladle furnace applications may use High Power ("HP") standard LD graphite electrodes.[37] Domestic producer shipments were *** UHP from 2023 to 2025, while subject importer shipments were *** UHP.[38]

Most domestically-produced LD graphite electrodes are sold directly to end users and made to meet specific plant and equipment requirements.[39] According to the petitioners, imported LD graphite electrodes have similar physical characteristics, production processes, and raw material inputs. They are sold to the same end users for the same end uses.[40]

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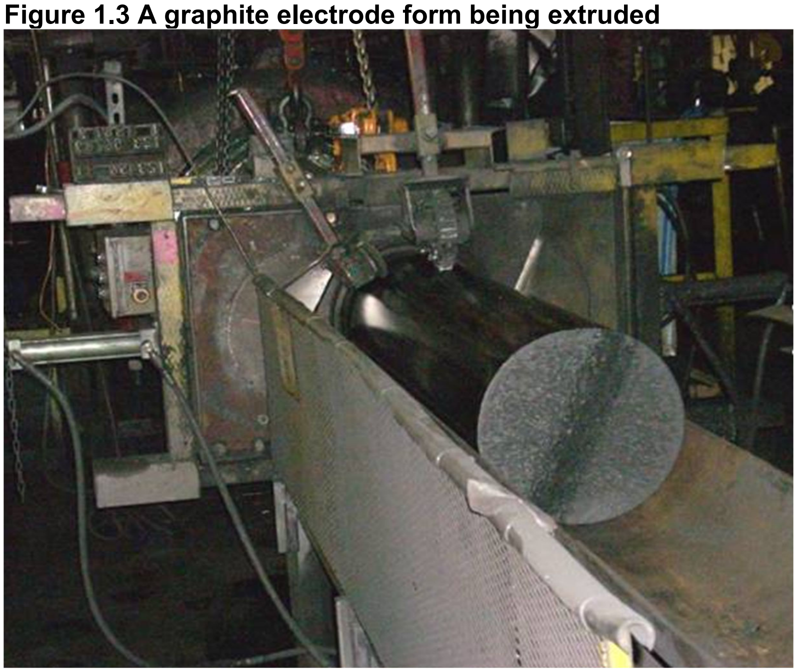
[36] Petition, p. 7.
[37] Petition, p. 8.
[38] See table 4.6.
[39] Petition, pp. 18 to 19.
[40] Petition, pp. 22 to 23.

Manufacturing processes

The LD graphite electrode production process starts with forming. In this process the coke materials are crushed and sieved into optimum grain-size fractions. Then coal tar pitch is added as a binder, and petroleum needle coke or pitch needle coke and other materials are mixed and heated into a uniform paste. The paste is then loaded into a cylindrical extrusion press or mold to form the required diameter and length for the electrode being produced (figure 1.3). This form is sometimes called a green electrode.[41]

Figure 1.3 A graphite electrode form being extruded



Source: Xuran, "Strict Production Process Guarantees High-Quality Graphite Electrodes," accessed March 10, 2026. https://www.graptek.com/technology/electrode-process.html.

Baking and impregnation follow the forming of the green electrode. The green electrode enters an oven to undergo a baking process to approximately 1000 °C to carbonize and devolatilize the raw materials.[42] After the first baking, the electrode form is "impregnated" at least once with a special pitch to improve strength and density (to fill pores) and to lower its electrical resistance.[43] Impregnation is a process where the electrode is placed in a pressure tank and immersed in pitch, which fills the pores of the electrode. The electrode form then goes

[41] Petition, pp. 8 to 9.
[42] Petition, p. 9.
[43] Petition, p. 9.

through a second baking, which carbonizes or hardens it. At this point, the electrode is semifinished and is more than 99 percent amorphous carbon.[44]

The semifinished electrode is next heated in a furnace to about 3000 °C. This heating, referred to as graphitization, crystallizes the raw material components, transforming them from amorphous carbon into graphite. Graphitization relies on one of two technologies, the Acheson process, or an in-line (or lengthwise) graphitization furnace.[45] In-line furnaces are most commonly used for LD graphite electrodes because of the production quality and efficiencies achieved. Specifically, in-line furnaces require shorter heating periods, consume less power, and require less labor. At this point electrodes are tested for electrical conductivity and mechanical strength.[46] The Acheson process uses an Acheson furnace, which resembles a rectangular box made of refractory material (often firebrick) and open on top. This furnace graphitizes the electrodes using a batch process.[47] An in-line furnace graphitizes an entire column of electrodes at the same time. The petitioners report using in-line furnaces for graphitization, and that respondents use a mix of Acheson and in-line furnaces.[48]

After cooling, LD graphite electrodes undergo machining, where the outside surface and threading of the electrode are lathed to exact dimensions and tolerances (figure 1.4). The ends of the electrode are also fitted with a threaded graphite pin joining system at this point.[49] The pins used in these systems are produced separately and are made to match the grade of the materials used in the electrode body.[50] Finishing is performed in accordance with the International Electrochemical Commission standard IEC 60239.[51] One respondent, UKCG, finishes imported electrodes in the UK, including subject LD graphite electrodes from China.[52] However, the petitioners and most of the respondents finish their own electrodes. Graftech, which stopped graphitization at its U.S. facility in June 2024, ***.[53]

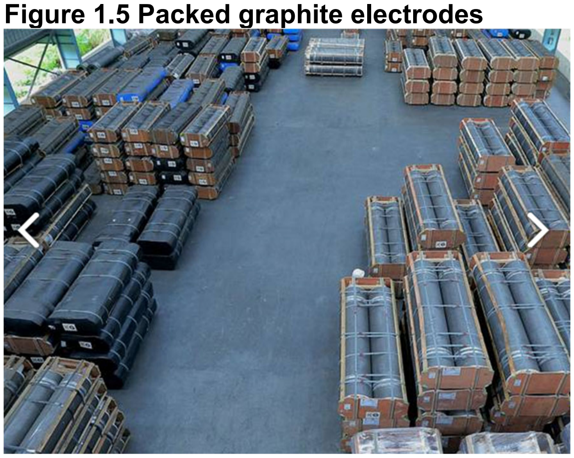
[44] Petition, p. 9.
[45] Petition, p. 9.
[46] East Carbon, "Step by Step Guide to Graphite Electrode Manufacturing Process," October 15, 2024.
[47] Asbury Graphite Mills, "An Introduction to Synthetic Graphite," 2006.
[48] Conference transcript, pp. 75 to 76 (McCloy, Duenas, and Luberda).
[49] Petition, pp. 9 to 10.
[50] Conference transcript, p. 43 (Luberda); UKCG's postconference brief, p. 15.
[51] Petition, p. 9 to 10.
[52] UKCG also refurbishes imported electrodes. Conference transcript, p. 102 (McGhee).
[53] Petitioners' postconference brief, p. 10, 37.

Figure 1.4 Machining the outside surface of a graphite electrode

Source: Xuran, "Strict Production Process Guarantees High-Quality Graphite Electrodes," accessed March 10, 2026. https://www.graptek.com/technology/electrode-process.html.

During packaging and shipping, finished LD graphite electrodes are typically placed between wooden chocks, bundled in steel strips, and protected by foam end caps and top hats, then shipped on a flatbed truck (figure 1.5). Imported LD graphite electrodes are packed and transported in wooden crates.[54]

Figure 1.5 Packed graphite electrodes



Source: Xuran, "Strict Production Process Guarantees High-Quality Graphite Electrodes," accessed March 10, 2026. https://www.graptek.com/technology/electrode-process.html.

[54] Petition, p. 10.

Domestic like product issues

No issues with respect to domestic like product have been raised in these investigations. The petitioners propose the Commission should find a single domestic like product that is coterminous with the scope covering large diameter graphite electrodes.[55] No respondent has expressed a contrary view.

[55] Petition, p. 20.

Part 2: Conditions of competition in the U.S. market

U.S. market characteristics

LD graphite electrodes are cylindrical forms of artificial graphite that are used to conduct electricity for the purpose of generating sufficient heat to melt scrap metal, iron ore, and other raw materials in the process of making or refining steel or other metals. LD graphite electrodes are typically produced in UHP grade for use in electric arc furnaces ("EAFs") but are to a lesser extent produced in HP grade for use in ladle metallurgical furnaces.[1] [2] UHP grade LD graphite electrodes are produced with very high-level or high quality, and higher priced raw materials (such as needle coke), while substantially lower volumes of HP grades of LD graphite electrodes are made with lower grades of needle coke or even anode grade cokes.[3]

Two of three U.S. producers and six of 10 importers indicated that the market was subject to distinctive conditions of competition. Specifically, U.S. producer *** reported that the market for LD graphite electrodes follows the cycle of the steel industry. U.S. producer *** reported that the LD graphite electrode market was not subject to distinctive conditions of competition; but reported that demand was driven by steel customers, specifically by new mills. Importer *** reported that the LD graphite electrode market has a limited number of suppliers. Importer *** reported that the LD graphite electrode market is influenced by several factors, including production quality, technical performance, supply reliability, delivery timing, and customer service. Importer *** reported that there should be increased usage of LD graphite electrodes as U.S. steel producers use more EAFs than other countries.

Overall, apparent U.S. consumption of LD graphite electrodes was relatively stable between 2023 and 2024, before decreasing in 2025.

Impact of tariffs

U.S. producers and importers were asked to report the impact of section 301 tariffs, section 232 tariffs, and tariffs associated with Presidential actions on overall demand, supply, prices, or raw material costs (tables 2.1 through 2.3). The majority of U.S. producers reported that section 301 and section 232 tariffs had not impacted the market for LD graphite electrodes and were unaware of the impact of tariffs associated with Presidential actions. However, U.S.

[1] Conference transcript, pp. 10-11 (McCloy).
[2] Conference transcript, pp. 61-62 (McCloy).
[3] Conference transcript, p. 62 (Duenas).

producer *** reported that section 232 tariffs increased demand for LD graphite electrodes, as domestic steel production increased to replace imported steel. U.S. producer *** reported that tariffs associated with Presidential actions had an initial positive result for U.S. producers of LD graphite electrodes. However, it added that importers adjusted and continued to supply the U.S. market with low priced LD graphite electrodes. It further reported that confusion and adjustments on the implementation, duration, and size of these tariffs ultimately resulted in them being ineffective.

Importer responses on the impact of section 301 and section 232 tariffs were mixed, while the majority of importers reported that tariffs associated with recent Presidential actions had impacted the LD graphite electrode market. Importers *** reported that section 301 tariffs have made LD graphite electrodes from China less competitive on price. Importer *** further reported that these increased prices impact the purchasing decisions and sourcing strategies of U.S. firms. Importer *** reported that section 232 tariffs improved demand for LD graphite electrodes as the domestic steel industry increased production. Importers generally reported that tariffs associated with recent Presidential actions have clouded the LD graphite electrode market with uncertainty, as importers are uncertain how to price LD graphite electrodes and purchasers examine how they source key components of steel production.

Table 2.1 LD graphite electrodes: Count of firms' responses regarding the impact of the 301 tariffs on Chinese origin products

Firm type	No	Yes	Don’t know
U.S. producers	3	0	0
Importers	3	4	4

Source: Compiled from data submitted in response to Commission questionnaires.

Table 2.2 LD graphite electrodes: Count of firms' responses regarding the impact of the 232 tariffs on steel and aluminum imports

Firm type	No	Yes	Don’t know
U.S. producers	2	1	0
Importers	4	3	4

Source: Compiled from data submitted in response to Commission questionnaires.

Table 2.3 LD graphite electrodes: Count of firms' responses regarding whether there was an impact of new/modified tariffs (IEEPA, reciprocal), by firm type

Firm type	No	Yes	Don't know
U.S. producers	0	1	2
Importers	0	6	5

Source: Compiled from data submitted in response to Commission questionnaires.

Channels of distribution

Virtually all LD graphite electrodes are sold directly to end users, i.e., steel and iron producers.[4]

Geographic distribution

U.S. producers reported selling LD graphite electrodes to all regions in the contiguous United States (table 2.4). Importers of LD graphite electrodes from China reported selling to all regions of the contiguous United States except the Mountain region. Responding importers of LD graphite electrodes from India only sold LD graphite electrodes to the Northeast, Midwest, and Southeast regions of the United States. For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent within 100 miles of their U.S. point of shipment and *** percent between 101 and 1,000 miles.

Table 2.4 LD graphite electrodes: Count of U.S. producers' and U.S. importers' geographic markets

Region	U.S. producers	China	India	Subject sources
Northeast	3	***	***	5
Midwest	3	***	***	4
Southeast	3	***	***	2
Central Southwest	3	***	***	1
Mountain	3	***	***	0
Pacific Coast	3	***	***	1
Other	0	***	***	0
All regions (except Other)	3	***	***	0
Reporting firms	3	6	2	7

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Other U.S. markets include AK, HI, PR, and VI.

[4] Questionnaire responses and conference transcript, p. 14 (McCloy).

Supply and demand considerations

U.S. supply

Table 2.5 provides a summary of the supply factors regarding LD graphite electrodes from U.S. producers and from subject countries. LD graphite electrode producers from China did not provide a response to the USITC questionnaire request.

Table 2.5 LD graphite electrodes: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in metric tons; ratio and share in percent

Factor	Measure	United States	India
Capacity 2023	Quantity	***	***
Capacity 2025	Quantity	***	***
Capacity utilization 2023	Ratio	***	***
Capacity utilization 2025	Ratio	***	***
Inventories to total shipments 2023	Ratio	***	***
Inventories to total shipments 2025	Ratio	***	***
Home market shipments 2025	Share	***	***
Non-US export market shipments 2025	Share	***	***
Ability to shift production (firms reporting “yes”)	Count	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Responding U.S. producers accounted for all known of U.S. production of LD graphite electrodes in 2025. Responding foreign producer/exporter firms accounted for virtually all U.S. imports of LD graphite electrodes from India during 2025. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Parts 3 and 7.

Domestic production

Based on available information, U.S. producers of LD graphite electrodes have the ability to respond to changes in demand with moderate to large changes in the quantity of shipments of U.S.-produced LD graphite electrodes to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and the availability of some inventories. Factors mitigating the responsiveness of supply include limited ability to shift shipments from alternate markets and a limited ability to shift production to or from alternate products.

U.S. producers' production capacity and production decreased from 2023 to 2025. Production decreased at a greater rate than production capacity, leading to a decrease in capacity utilization over the same period of time. U.S. producers' inventories decreased to the point that inventories in 2025 were less than *** of inventories in 2023. U.S. producers reported selling the vast majority of their shipments to the U.S. market. *** U.S. producer (***) reported being able to produce electrodes in a range of diameters that fall outside the scope of this investigation and a small quantity of smelting electrodes on the same equipment used to produce LD graphite electrodes.

Subject imports from China

Although Chinese producers did not provide questionnaire responses, staff believes that Chinese producers have the ability to respond to changes in demand with at least moderate changes in the quantity of shipments of LD graphite electrodes. Based on import data, Chinese producers supplied the U.S. market with larger quantities of LD graphite electrodes in 2023 than they did in 2025. Similarly, the quantities LD graphite electrodes purchasers reported purchasing were higher in 2023 than in 2025. The quantities of imported LD graphite electrodes from China peaked in 2024 while reported quantities of purchased LD graphite electrodes from China peaked in 2023. This indicates that Chinese producers have some ability to increase shipments of LD graphite electrodes to the U.S. market to at least the levels reached during the years of peak imports or purchases.

Subject imports from India

Based on available information, producers of LD graphite electrodes from India have the ability to respond to changes in demand with large changes in the quantity of shipments of LD graphite electrodes to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, the availability of inventories, the ability to shift shipments from alternate markets, and the ability to shift production to or from alternate products.

Indian producers increased production capacity while generally maintaining capacity utilization rates resulting in increased production. Indian inventories decreased from 2023 to 2025. Indian producers reported selling the vast majority of their shipments to markets other than the United States. *** Indian producers reported being ***.

Imports from nonsubject sources

Nonsubject imports accounted for *** percent of total U.S. imports by quantity in 2025. The largest sources of nonsubject imports during January 2023 to December 2025 were Mexico, Spain, and France.

Supply constraints

All U.S. producers and importers reported that they had not experienced supply constraints since January 1, 2023.

U.S. demand

Based on available information, the overall demand for LD graphite electrodes is likely to experience small changes in response to changes in price. The main contributing factors are the lack of substitute products and the small cost share of LD graphite electrodes in steel production.

End uses and cost share

U.S. demand for LD graphite electrodes depends on the demand for U.S.-produced steel, specifically steel produced in EAFs. According to U.S. producers and importers, LD graphite electrodes range from 1.0 to 4.0 percent of the associated costs of steel production.

Business cycles

All responding U.S. producers reported that the market was not subject to business cycles while the majority of importers (7 of 11) indicated that it was. Specifically, importer *** reported that steel demand directly affects the market for graphite electrodes. Importer *** reported that when steel production increases, the supply of LD graphite electrodes becomes limited. Importer *** reported that demand for LD graphite electrodes generally follows steel production cycles, particularly the production cycles of facilities that use EAFs. Importer *** reported that since the steel industry (the only user of LD graphite electrodes) experiences business cycles, the electrode business does as well.

Demand trends

All U.S. producers reported that U.S. demand for LD graphite electrodes fluctuated upward since January 1, 2023, while importer responses on the changes in U.S. demand for LD graphite electrodes were mixed (table 2.6).

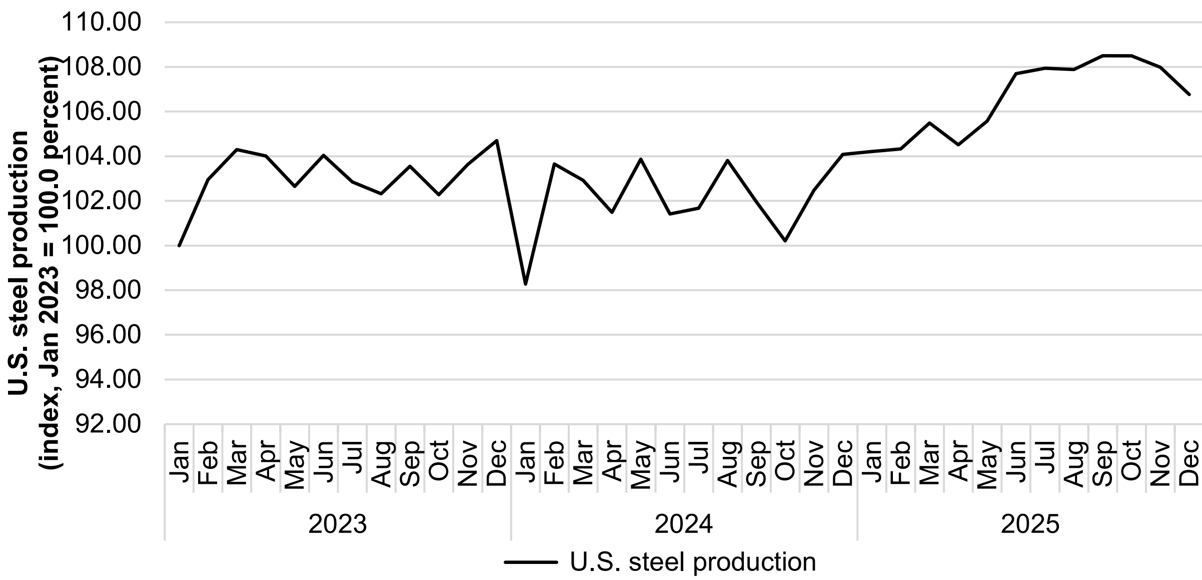
Table 2.6 LD graphite electrodes: Count of firms' responses regarding overall domestic and foreign demand, by firm type

Market	Firm type	Steadily Increase	Fluctuate upward	No change	Fluctuate downward	Steadily decrease
Domestic demand	U.S. producers	0	3	0	0	0
Domestic demand	Importers	2	3	2	2	2
Foreign demand	U.S. producers	0	1	0	1	1
Foreign demand	Importers	1	2	2	3	2

Source: Compiled from data submitted in response to Commission questionnaires.

According to U.S. producers and importers, demand for LD graphite electrodes is generally associated with steel production. Steel production and the demand for LD graphite electrodes are closely but not perfectly correlated because not all steel production uses methods requiring LD graphite electrodes.[5] As shown in figure 2.1 and table 2.7, U.S. steel production fluctuated throughout the period but generally increased from January 2023 to December 2025.

Figure 2.1 LD graphite electrodes: U.S. steel production, January 2023 to December 2025



Source: Federal Reserve Economic Data, Federal Reserve Bank of St. Louis; Industrial Production: Manufacturing: Durable Goods: Raw Steel (NAICS = 3311,2pt.), Index 2023=100.0, Monthly, Seasonally Adjusted; https://fred.stlouisfed.org; data accessed March 23, 2026.

Note: The graphic's vertical axis is not set to zero as the point of an indexed analysis is to compare the evolution of a data series relative to the indexed period.

[5] Conference transcript, p. 95 (McCloy).

Table 2.7 LD graphite electrodes: U.S. steel production, January 2023 to December 2025

Month	2023	2024	2025
January	100.0	98.3	104.2
February	102.9	103.6	104.3
March	104.3	102.9	105.5
April	104.0	101.5	104.5
May	102.7	103.9	105.6
June	104.0	101.4	107.7
July	102.8	101.7	107.9
August	102.3	103.8	107.9
September	103.5	102.0	108.5
October	102.3	100.2	108.5
November	103.6	102.5	108.0
December	104.7	104.1	106.8

Source: https://fred.stlouisfed.org, accessed 19 March, 2026

Substitute products

Responding U.S. producers and importers identified no substitutes for LD graphite electrodes.

Substitutability issues

This section assesses the degree to which U.S.-produced LD graphite electrodes and imports of LD graphite electrodes from subject countries can be substituted for one another by examining the importance of certain purchasing factors and the comparability of LD graphite electrodes from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderately high degree of substitutability between domestically produced LD graphite electrodes and LD graphite electrodes imported from subject sources.[6] [7] Factors contributing to this level of substitutability include the availability of the full range of LD graphite electrodes from the United States, India, China, and nonsubject countries. Additionally, certified LD graphite electrodes of the same grade, diameter, and length

[6] The degree of substitutability between domestic and imported LD graphite electrodes depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced LD graphite electrodes to the LD graphite electrodes imported from subject countries (or vice versa) when prices change. The degree of substitutability may include such factors as quality differences (e.g., grade standards, defect rates, etc.), and differences in sales conditions (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.).

[7] Different grades of LD graphite electrodes are not interchangeable with each other. Conference transcript, p. 63 (Duenas).

are interchangeable and can be used in the same equipment to produce identical products.[8] However, U.S. producers acknowledge that, in practice, steel producers avoid mixing LD graphite electrodes from different producers during production, but instead using them in batches due to differences between connecting pins produced by different manufacturers used to connect LD graphite electrodes during production. U.S producers also report that steel producers make some very minor adjustments when changing from LD graphite electrodes from one source to another in order to account for differences in LD graphite electrodes from different producers.[9] Furthermore, there are reported differences in quality between LD graphite electrodes from different sources that impact the breakage rate and consumption rate of LD graphite electrodes.[10]

Most important purchase factors

Purchasers responding to lost sales lost revenue allegations[11] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for LD graphite electrodes.

The most often cited top three factors firms consider in their purchasing decisions for LD graphite electrodes were quality/performance/reliability (10 firms), price/cost and availability/supply/diversity and reliability of supply chain (8 firms each), as shown in table 2.8. Quality/performance/reliability was the most frequently cited first-most important factor (cited by 6 firms), followed by price/cost and availability/supply/diversity and reliability of supply chain (2 firms each); quality/performance/reliability and availability/supply/diversity and reliability of supply chain were the most frequently reported second-most important factors (3 firms each); and price/cost was the most frequently reported third-most important factor (5 firms).

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[8] Steel producers' EAFs are designed to be compatible with one diameter of LD graphite electrodes. Steel producers may also be limited with respect to lengths of LD graphite electrode that an EAFs can use based on the roof clearance of their processing facility. Conference transcript, p. 64 (McCloy).

[9] The connecting pins that connect LD graphite electrodes are made to customer specifications on factors such as length and width and are not necessarily interchangeable between customers. Conference transcript, p. 78 (McCloy). Connecting pins also must have a thermal expansion rate matching the expansion rate of the LD graphite electrodes that they connect. If connecting pins and LD graphite electrodes have different expansion rates, there can be stress on the joint between two LD graphite electrodes which may result in LD graphite electrodes breaking during steel production. Conference transcript, p. 42 (Luberda). Conference transcript, pp. 98-99 (Duenas). Batches typically last for several of weeks or even for as long as a month. Conference transcript, Ibid.

[10] Conference transcript, pp. 22 (Duenas) and 11 (McCloy).

[11] This information is compiled from responses by purchasers identified by Petitioners or other U.S. producers to the lost sales lost revenue allegations. See Part 5 for additional information.

Table 2.8 LD graphite electrodes: Count of ranking of factors used in purchasing decisions as reported by purchasers, by factor

Factor	First	Second	Third	Total
Quality / Performance / Reliability	6	3	1	10
Price / Cost	2	1	5	8
Availability / Supply / Diversity and Reliability of Supply Chain	2	3	3	8
All other factors	1	4	2	7

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Other factors include quality of raw materials, value-in-use, the ability to meet our delivery and quantity requirements consistently on-time, parent company input, technical services, customer services, and relationships with the supplier.

Lead times

LD graphite electrodes are primarily produced-to-order. U.S. producers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days.[12] The remaining *** percent of their commercial shipments came from inventories, with lead times averaging *** days. Importers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days; the remaining *** percent of commercial shipments came from U.S. inventories with lead times averaging *** days and *** percent of commercial shipments came from foreign inventories with lead times averaging *** days.

Comparison of U.S.-produced and imported LD graphite electrodes

In order to determine whether U.S.-produced LD graphite electrodes can generally be used in the same applications as imports from China and India, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in tables 2.9, all U.S. producers reported that LD graphite electrodes from the United States, China, India, and nonsubject countries are always interchangeable. The majority of importers reported that LD graphite electrodes from the United States, China, India, and nonsubject countries are always or frequently interchangeable (table 2.10).[13]

[12] U.S. producers reported that the production process was largely fixed and that the LD graphite electrode production would require approximately 90 days with some small variation based on the size of the LD graphite electrode. Conference transcript, p. 74 (Duenas).

[13] Importer *** reported that the nonsubject country used in this comparison was Japan.

Table 2.9 LD graphite electrodes: Count of U.S. producers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	3	0	0	0
U.S. vs. India	3	0	0	0
U.S. vs. other	3	0	0	0
China vs. India	3	0	0	0
China vs. Other	3	0	0	0
India vs. Other	3	0	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

Table 2.10 LD graphite electrodes: Count of importers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	3	5	1	0
U.S. vs. India	3	3	1	0
U.S. vs. other	4	3	0	0
China vs. India	3	3	1	0
China vs. Other	3	5	0	0
India vs. Other	3	3	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

In addition, U.S. producers and importers were asked to assess how often differences other than price were significant in sales of LD graphite electrodes from the United States, subject, or nonsubject countries. As seen in tables 2.11, all U.S. producers reported that there are never significant differences other than price between LD graphite electrodes from the United States, China, India, and nonsubject countries. Importer responses on the significance of differences other than price between LD graphite electrodes from the United States and LD graphite electrodes from India and China were mixed (table 2.12). However, a majority of importers reported that there are sometimes or never differences other than price between LD graphite electrodes from China and India. Also, a majority of importers reported that there are sometimes or never significant differences other than price between LD graphite electrodes from nonsubject countries and LD graphite electrodes from the United States, India, and China. Importer *** reported that factors other than price frequently influence purchasing decisions. It further reported that these factors may include performance, reliability in furnace operations, supplier delivery capability, inventory availability, technical support, and logistics reliability.

Table 2.11 LD graphite electrodes: Count of U.S. producers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	0	0	0	3
U.S. vs. India	0	0	0	3
U.S. vs. other	0	0	0	3
China vs. India	0	0	0	3
China vs. Other	0	0	0	3
India vs. Other	0	0	0	3

Source: Compiled from data submitted in response to Commission questionnaires.

Table 2.12 LD graphite electrodes: Count of importers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. China	1	3	3	2
U.S. vs. India	1	2	1	3
U.S. vs. other	1	0	4	2
China vs. India	1	1	1	4
China vs. Other	1	2	3	2
India vs. Other	1	0	3	2

Source: Compiled from data submitted in response to Commission questionnaires.

Part 3: U.S. producers' production, shipments, and employment

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in Part 1 of this report and information on the volume and pricing of imports of the subject merchandise is presented in Part 4 and Part 5. Information on the other factors specified is presented in this section and/or Part 6 and (except as noted) is based on the questionnaire responses of three firms that accounted for all known U.S. production of LD graphite electrodes during 2023 to 2025.[1]

U.S. producers

The Commission issued a U.S. producer questionnaire to three firms based on information contained in the petition. Three firms provided usable data on their operations. Table 3.1 lists U.S. producers of LD graphite electrodes, their production locations, positions on the petition, and shares of total production.

Table 3.1 LD graphite electrodes: U.S. producers, their positions on the petition, production locations, and shares of reported production, 2025

Shares in percent

Firm	Position on petition	Production location(s)	Share of production
GrafTech	***	St. Marys, PA	***
Resonac	Petitioner	Ridgeville, SC	***
Tokai Carbon	Petitioner	Hickman, KY Ozark, AR	***
All firms	Various	Various	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

[1] This count includes U.S. producer GrafTech, which produced LD graphite electrodes in the United States but idled graphitization operations at its St. Marys facility in June 2024. Petition, p. 3. GrafTech continues to machine and assemble LD graphite electrodes at the St Marys facility ***. Petitioners' postconference brief, Exhibit 5. See Part 4 for further details regarding GrafTech's ***.

Table 3.2 presents information on U.S. producers' ownership, related and/or affiliated firms. As indicated in table 3.2, all three U.S. producers are related to foreign producers of LD graphite electrodes[2] but none are related to U.S. importers of subject merchandise. No U.S. producer directly imports LD graphite electrodes from either China or India, nor does any U.S. producer purchase LD graphite electrodes from either China or India through U.S. importers.[3]

Table 3.2 LD graphite electrodes: U.S. producers' ownership, related and/or affiliated firms

Reporting firm	Relationship type and related firm	Details of relationship
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[2] No U.S. producers reported related producers in subject countries. However, according to publicly available information, Resonac Holdings Corporation produced graphite electrodes in China during 2023 to 2025, and subject producer HEG acquired a stake in U.S. producer GrafTech in 2024. Resonac states that the firm ***. GrafTech stated that ***. Table 3.3; HEG surges 6% after buying 8.23% stake in GrafTech Int'l for Rs 250 crore, HEG share price: HEG surges 6% after buying 8.23% stake in GrafTech Int'l for Rs 250 crore | News on Markets - Business Standard, retrieved March 31, 2026. See correspondence with ***; and ***, March 31, 2026.

[3] U.S. producers *** reported imports from nonsubject sources including ***.

Table 3.3 presents events in the U.S. industry since January 1, 2023.

Table 3.3 LD graphite electrodes: Important industry events since 2023

Item	Firm	Event
Layoffs	GrafTech	On February 15, 2024 GrafTech announced that it was laying off over 100 workers and suspending the majority of its production processes, including graphitization of LD graphite electrodes, at its St. Marys, PA facility.
Plant shutdown	Resonac	On May 16, 2025 Resonac Holdings Corporation announced that it would cease production of graphite electrodes in China and Malaysia.

Source: Cherry, “GrafTech cites weak market conditions resulting in recent layoffs,” February 15, 2024. https://www.smdailypress.com/news/graftech-cites-weak-market-conditions-resulting-in-recent-layoffs/article_2803c990-cc36-11ee-bfe3-7b07dc492465.html; Business Standard, “Graphite electrode stocks soar as Resonac exits China and Malaysia,” May 19, 2025. https://www.business-standard.com/markets/capital-market-news/graphite-electrode-stocks-soar-as-resonac-exits-china-and-malaysia-125051900642_1.html.

Producers in the United States were asked to report any change in the character of their operations or organization relating to the production of LD graphite electrodes since 2023. All producers indicated in their questionnaires that they had experienced such changes. Table 3.4 presents the changes identified by these producers.

Table 3.4 LD graphite electrodes: U.S. producers’ reported changes in operations, since January 1, 2023

Item	Firm name and narrative response on changes in operations
Prolonged shutdowns	GrafTech: St. Marys facility stopped graphitizing LD graphite electrodes in June 2024. ***
Prolonged shutdowns	Resonac: *** intermittent operations and extended shutdown in 2025.
Production curtailments	***
Expansions	***
Expansions	***
Other	Resonac: Reduction in labor force ***

Source: Compiled from data submitted in response to Commission questionnaires; petitioners’ postconference brief; and conference transcript.

U.S. production, capacity, and capacity utilization

Table 3.5 presents U.S. producers' installed and practical capacity and production on the same equipment. Overall installed capacity was stable from 2023 to 2025 while practical overall capacity decreased after 2023, consistent with U.S. producer GrafTech's idling of graphitization operations at its St. Marys facility in June 2024. Production of LD graphite electrodes decreased from 2023 to 2025.

Table 3.5 LD graphite electrodes: U.S. producers' installed and practical capacity and production on the same equipment as in-scope production, by period

Capacity and production in metric tons; utilization in percent

Item	Measure	2023	2024	2025
Installed overall	Capacity	***	***	***
Installed overall	Production	***	***	***
Installed overall	Utilization	***	***	***
Practical overall	Capacity	***	***	***
Practical overall	Production	***	***	***
Practical overall	Utilization	***	***	***
Practical LD graphite electrodes	Capacity	***	***	***
Practical LD graphite electrodes	Production	***	***	***
Practical LD graphite electrodes	Utilization	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 3.6 presents U.S. producers' reported narratives regarding practical capacity constraints.

Table 3.6 LD graphite electrodes: U.S. producers' reported capacity constraints since January 1, 2023

Item	Firm name and narrative response on constraints to practical overall capacity
Production bottlenecks	***
Existing labor force	Resonac: After reduction in labor force due to loss of sales to Chinese and Indian imports. ***
Fuel or energy	***
Other constraints	GrafTech: St Marys *** idling of graphitization *** in June 2024 ***
Other constraints	***

Source: Compiled from data submitted in response to Commission questionnaires and conference transcript.

Table 3.7 and figure 3.1 present U.S. producers' production, capacity, and capacity utilization. U.S. producers' capacity and production of LD graphite electrodes decreased from 2023 to 2025, consistent with the idling of U.S. producer GrafTech's graphitization operations in mid-2024.[4] [5] Responding producers' capacity utilization also decreased yearly from 2023 to 2025.[6]

Table 3.7 LD graphite electrodes: U.S. producers' practical capacity, production, capacity utilization, and share of production, by firm and by period, by firm and period

Practical capacity

Capacity in metric tons

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 3.7 (Continued) LD graphite electrodes: U.S. producers' practical capacity, production, capacity utilization, and share of production, by firm and by period, by firm and period

Production

Production in metric tons

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

[4] The largest U.S. producer, Resonac, reported an extended shutdown in 2025 that prevented it from reaching a sustainably capacity utilization level. Conference transcript, p. 21 (Duenas).

[5] After idling its graphitization operations, U.S. producer GrafTech reported ***. See *** U.S. importer questionnaire, questions 2.4 and 2.7a.

[6] U.S. producer *** reported installing a new graphitization furnace in 2024 that resulted in increased practical and scope capacity but reported a decrease in production levels from 2023 to 2025, resulting in a decrease in capacity utilization each year.

Table 3.7 (Continued) LD graphite electrodes: U.S. producers' practical capacity, production, capacity utilization, and share of production, by firm and by period, by firm and period

Capacity utilization

Capacity utilization in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Note: Capacity utilization ratio represents the ratio of the U.S. producer's production to its production capacity.

Table continued.

Table 3.7 (Continued) LD graphite electrodes: U.S. producers' practical capacity, production, capacity utilization, and share of production, by firm and by period, by firm and period

Share of production

Share in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Figure 3.7 LD graphite electrodes: U.S. producers' practical capacity, production, capacity utilization, by period

*   *   *   *   *   *   *

Source: Compiled from data submitted in response to Commission questionnaires.

Alternative products

As shown in table 3.8, the large majority of product produced from 2023 to 2025 by U.S. producers was LD graphite electrodes. U.S. producer *** reported producing alternative products, specifically graphite electrodes with a diameter between 14.0 and 16.7 inches, smelting electrodes, and fine carbon rods. No production of graphite electrodes with a diameter of less than 14 inches was reported.

Table 3.8 LD graphite electrodes: U.S. producers' overall production on the same equipment as in-scope production, by period

Quantity in metric tons; ratio and share in percent

Product type	Measure	2023	2024	2025
LD graphite electrodes	Quantity	***	***	***
Graphite electrodes O.D. between 14.0 to 16.7 inches	Quantity	***	***	***
Graphite electrodes O.D. less than 14.0 inches	Quantity	***	***	***
Other products	Quantity	***	***	***
Out-of-scope products	Quantity	***	***	***
All products	Quantity	***	***	***
LD graphite electrodes	Share	***	***	***
Graphite electrodes O.D. between 14.0 to 16.7 inches	Share	***	***	***
Graphite electrodes O.D. less than 14.0 inches	Share	***	***	***
Other products	Share	***	***	***
Out-of-scope products	Share	***	***	***
All products	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". "O.D." stands for outer diameter. Outer diameter between 14.0 and 16.7 inches are inclusive of the stated lower and upper outer diameter ranges.

U.S. producers' U.S. shipments and exports

Table 3.9 presents U.S. producers' U.S. shipments, export shipments, and total shipments of finished LD graphite electrodes. U.S. shipments accounted for nearly all shipments from 2023 to 2025 as a share of quantity and value.[7] The quantity of U.S. shipments decreased irregularly from 2023 to 2025, and the value of U.S. shipments decreased yearly from 2023 to 2025.[8] The average unit value of U.S. producers' U.S. shipments also decreased from 2023 to 2025.

Table 3.9 LD graphite electrodes: U.S. producers' total shipments, by destination and period

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric ton

Item	Measure	2023	2024	2025
U.S. shipments	Quantity	***	***	***
Export shipments	Quantity	***	***	***
Total shipments	Quantity	***	***	***
U.S. shipments	Value	***	***	***
Export shipments	Value	***	***	***
Total shipments	Value	***	***	***
U.S. shipments	Unit value	***	***	***
Export shipments	Unit value	***	***	***
Total shipments	Unit value	***	***	***
U.S. shipments	Share of quantity	***	***	***
Export shipments	Share of quantity	***	***	***
Total shipments	Share of quantity	100.0	100.0	100.0
U.S. shipments	Share of value	***	***	***
Export shipments	Share of value	***	***	***
Total shipments	Share of value	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

[7] None of the responding firms reported internal consumption or transfers to related parties of finished LD graphite electrodes.

[8] The decrease in quantity and value of U.S. shipments from 2024 to 2025 is consistent with the idling of U.S. producer GrafTech's graphitization operations in June 2024 and U.S. producer Resonac's shutdowns and reduction in labor force in 2025. Petitioners' postconference brief, Exhibit 5; and conference transcript, pp. 20-21 (Duenas).

U.S. producers’ inventories

Table 3.10 presents U.S. producers’ end-of-period inventories and the ratio of these inventories to U.S. producers’ production, U.S. shipments, and total shipments. U.S. producers’ end of period inventories decreased yearly from 2023 to 2025. The ratios of U.S. producers’ end of period inventories to their U.S. production, U.S. shipments, and total shipments also decreased yearly from 2023 to 2025. The substantial decrease across all metrics from 2023 to 2024 is consistent with U.S. producer ***, which held the largest share of end-of-period inventories in 2023 but reported no end-of-period inventories in 2024 or 2025 consistent with ***.

Table 3.10 LD graphite electrodes: U.S. producers’ inventories and their ratio to select items, by period

Quantity in metric tons; ratio in percent

Item	2023	2024	2025
End-of-period inventory quantity	***	***	***
Inventory ratio to U.S. production	***	***	***
Inventory ratio to U.S. shipments	***	***	***
Inventory ratio to total shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producers’ imports from subject sources

No responding U.S. producer reported imports of LD graphite electrodes from China or India from 2023 to 2025. U.S. producers *** and *** reported imports from nonsubject sources. U.S. producer *** imported *** from its affiliates in nonsubject countries, including ***.[9] U.S. producer *** imported ***.

No responding U.S. producer reported purchases of LD graphite electrodes from 2023 to 2025.

[9] U.S. producer *** imports ***. See Part 4 for further details.

U.S. employment, wages, and productivity

Table 3.11 shows U.S. producers' employment-related data. All responding producers reported a decrease in the number of production and related workers from 2023 to 2025. Total hours worked and productivity decreased over the same time period.[10] Hourly wages, in contrast, increased. Consistent with declining productivity and rising wage rates, labor costs increased noticeably in both 2024 and 2025.

Table 3.11 LD graphite electrodes: U.S. producers' employment related information, by period

Item	2023	2024	2025
Production and related workers (PRWs) (number)	***	***	***
Total hours worked (1,000 hours)	***	***	***
Hours worked per PRW (hours)	***	***	***
Wages paid ($1,000)	***	***	***
Hourly wages (dollars per hour)	***	***	***
Productivity (metric tons per 1,000 hours)	***	***	***
Unit labor costs (dollars per metric ton)	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[10] A representative from Resonac stated that it laid off a significant number of employees in 2025 due to the loss of sales and market share to imports from China and India. Conference transcript, pp. 20-21 (Duenas).

Part 4: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 152 firms believed to be importers of subject LD graphite electrodes, as well as to all U.S. producers of LD graphite electrodes.[1] Usable questionnaire responses were received from 12 companies,[2] representing virtually all U.S. imports from China, India, and nonsubject sources in 2025 under HTS statistical reporting number 8545.11.0020.[3] Questionnaire responses also report a large volume of in-scope product under other HTS numbers, including imports from India that appear to be misclassified under HTS statistical reporting number 8545.11.0050 [4] as well as imports of unfinished LD graphite electrodes and pinning and connecting systems under HTS statistical reporting numbers 3801.10.0000; 3801.10.5000; and 3801.90.0000.[5]

Table 4.1 lists all responding U.S. importers of LD graphite electrodes from China and India and other sources, their locations, and their shares of U.S. imports, in 2025.[6]

[1] The Commission issued questionnaires to those firms identified in the petitions; staff research; and proprietary, Census-edited Customs' import records.

[2] The Commission received an importer questionnaire from *** too late for staff to incorporate into the staff report. Importer *** reported importing *** metric tons of LD graphite electrodes from India in 2025, *** of which were internally consumed, and the rest held in inventory. See footnote 6 for details on an additional importer questionnaire. Table 4.1 also includes ***.

[3] U.S. importer *** reported that it imported some smaller diameter graphite electrodes (specifically with an outer diameter of 16 inches and below) under HTS statistical reporting number 8545.11.0020, which is the code for "graphite electrodes, exceeding 425 mm (16.7 inches) in diameter, of a kind used for furnaces." See correspondence with ***, March 13. 2026.

[4] HTS statistical reporting number 8545.11.0050 is the code for "carbon electrodes, of a kind used for furnaces, other than those made of graphite." See correspondence with ***, March 12, 2026.

[5] In addition, 30 firms certified they had not imported LD graphite electrodes.

[6] Subject producer *** reported that it acts as the importer of record for its LD graphite electrodes entering the U.S. but was unable to complete a U.S. importer questionnaire. ***.

Table 4.1 LD graphite electrodes: U.S. importers, their headquarters, and share of imports within each source, 2025

Share in percent

Firm	Headquarters	China	India	Subject sources	Nonsubject sources	All import sources
Alternative	Pittsburgh, PA	***	***	***	***	***
ATC	West Chester, OH	***	***	***	***	***
Ceramark	Richmond, BC	***	***	***	***	***
Ellwood	New Castle, PA	***	***	***	***	***
FRC Global	Wilmington, DE	***	***	***	***	***
GES	Parma, OH	***	***	***	***	***
GrafTech	Brooklyn Heights, OH	***	***	***	***	***
Graphite India Limited	Kolkata, India	***	***	***	***	***
Mbrashem	Bellevue, WA	***	***	***	***	***
Resonac	Ridgeville, SC	***	***	***	***	***
Tenaris	Houston, TX	***	***	***	***	***
TMS	Horsham, PA	***	***	***	***	***
Tokai Carbon	Charlotte, NC	***	***	***	***	***
UKCG	Derbyshire, England	***	***	***	***	***
All firms	Various	100.0	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. imports

Tables 4.2 and 4.3 and figure 4.1 present data for U.S. imports of LD graphite electrodes from China and India and all other sources. Subject sources accounted for a minority share of total imports from 2023 to 2025 by quantity and value. The quantity of subject imports increased yearly from 2023 to 2025 while the value of subject imports increased from 2023 to 2024 then decreased from 2024 to 2025. U.S. imports from nonsubject sources decreased by quantity and value from 2023 to 2024 then increased in quantity and value from 2024 to 2025. From 2023 to 2025, the largest nonsubject sources for U.S. imports of LD graphite electrodes were Mexico, Spain, and France.[7]

Imports from China by quantity increased from 2023 to 2024 then decreased in 2025, while imports from China by value decreased yearly from 2023 to 2025. Imports from India by quantity and value increased yearly from 2023 to 2025.

The unit value of subject imports decreased from 2023 to 2025 while the unit value of nonsubject imports increased from 2023 to 2024 then decreased in 2025. The ratio of subject imports to U.S. production increased yearly from 2023 to 2025 while the ratio of nonsubject imports to U.S. production was relatively stable between 2023 and 2024 then increased in 2025.

[7] U.S. importer *** reported the largest share of imports from nonsubject sources *** and indicated that all of its nonsubject imports came from ***. Petitioners' postconference brief, Exhibit 5; ***, U.S. importer questionnaire, question 2.4 and 2.7a.

Table 4.2 LD graphite electrodes: U.S. imports by source and period

Quantity in metric tons; value in 1,000 dollars; unit value in dollars per metric ton; shares and ratio in percent

Source	Measure	2023	2024	2025
China	Quantity	***	***	***
India	Quantity	***	***	***
All subject sources	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	39,165	38,767	52,532
China	Value	***	***	***
India	Value	***	***	***
All subject sources	Value	***	***	***
Nonsubject sources	Value	***	***	***
All import sources	Value	181,543	173,700	207,993
China	Unit value	***	***	***
India	Unit value	***	***	***
All subject sources	Unit value	***	***	***
Nonsubject sources	Unit value	***	***	***
All import sources	Unit value	4,635	4,481	3,959
China	Share of quantity	***	***	***
India	Share of quantity	***	***	***
All subject sources	Share of quantity	***	***	***
Nonsubject sources	Share of quantity	***	***	***
All import sources	Share of quantity	100.0	100.0	100.0
China	Share of value	***	***	***
India	Share of value	***	***	***
All subject sources	Share of value	***	***	***
Nonsubject sources	Share of value	***	***	***
All import sources	Share of value	100.0	100.0	100.0
China	Ratio	***	***	***
India	Ratio	***	***	***
All subject sources	Ratio	***	***	***
Nonsubject sources	Ratio	***	***	***
All import sources	Ratio	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to production.

Figure 4.1 LD graphite electrodes: U.S. import quantities and average unit values, by source and period

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table 4.3 LD graphite electrodes: Changes in U.S. imports, by source and period

Changes (Δ) in percent (%) or percentage point (ppt)

Source	Measure	2023 to 2025	2023 to 2024	2024 to 2025
China	%Δ Quantity	▼***	▲***	▼***
India	%Δ Quantity	▲***	▲***	▲***
All subject sources	%Δ Quantity	▲***	▲***	▲***
Nonsubject sources	%Δ Quantity	▲***	▼***	▲***
All import sources	%Δ Quantity	▲34.1	▼(1.0)	▲35.5
China	%Δ Value	▼***	▼***	▼***
India	%Δ Value	▲***	▲***	▲***
All subject sources	%Δ Value	▲***	▲***	▼***
Nonsubject sources	%Δ Value	▲***	▼***	▲***
All import sources	%Δ Value	▲14.6	▼(4.3)	▲19.7
China	%Δ Unit value	▼***	▼***	▼***
India	%Δ Unit value	▼***	▼***	▼***
All subject sources	%Δ Unit value	▼***	▼***	▼***
Nonsubject sources	%Δ Unit value	▼***	▲***	▼***
All import sources	%Δ Unit value	▼***	▼***	▼***
China	ppt Δ Quantity	▼***	▲***	▼***
India	ppt Δ Quantity	▲***	▲***	▲***
All subject sources	ppt Δ Quantity	▲***	▲***	▼***
Nonsubject sources	ppt Δ Quantity	▼***	▼***	▲***
All import sources	ppt Δ Quantity	—	—	—
China	ppt Δ Value	▼***	▲***	▼***
India	ppt Δ Value	▲***	▲***	▼***
All subject sources	ppt Δ Value	▼***	▲***	▼***
Nonsubject sources	ppt Δ Value	▲***	▼***	▲***
All import sources	ppt Δ Value	***	***	***
China	ppt Δ Ratio	▲***	▲***	▲***
India	ppt Δ Ratio	▲***	▲***	▲***
All subject sources	ppt Δ Ratio	▲***	▲***	▲***
Nonsubject sources	ppt Δ Ratio	▲***	▼***	▲***
All import sources	ppt Δ Ratio	▲***	▲***	▲***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "—". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

Table 4.4 presents data on U.S. imports from nonsubject sources, by product type and period.[8] [9] U.S. producers ***. Counsel contends that there is no separate market for pinning systems and notes that ***.[10]

[8] U.S. producers, principally ***, accounted for more than *** percent of nonsubject imports in each calendar year for which data were collected.

[9] Unfinished LD graphite electrodes refers to graphite electrodes that have been graphitized but not machined.

[10] See correspondence with ***, March 24, 2026. See tables 4.10 and 4.11 for further details.

Table 4.4 LD graphite electrodes: U.S. imports from nonsubject sources, by product type and period

Quantity in metric tons; Share in percent out of U.S. imports from all sources

Source	Measure	2023	2024	2025
Nonsubject: Finished	Quantity	***	***	***
Nonsubject: Unfinished	Quantity	***	***	***
Nonsubject: Pinning systems	Quantity	***	***	***
Nonsubject: All product types	Quantity	***	***	***
Nonsubject: Finished	Value	***	***	***
Nonsubject: Unfinished	Value	***	***	***
Nonsubject: Pinning systems	Value	***	***	***
Nonsubject: All product types	Value	***	***	***
Nonsubject: Finished	Unit value	***	***	***
Nonsubject: Unfinished	Unit value	***	***	***
Nonsubject: Pinning systems	Unit value	***	***	***
Nonsubject: All product types	Unit value	***	***	***
Nonsubject: Finished	Share of quantity	***	***	***
Nonsubject: Unfinished	Share of quantity	***	***	***
Nonsubject: Pinning systems	Share of quantity	***	***	***
Nonsubject: All product types	Share of quantity	***	***	***
Nonsubject: Finished	Share of value	***	***	***
Nonsubject: Unfinished	Share of value	***	***	***
Nonsubject: Pinning systems	Share of value	***	***	***
Nonsubject: All product types	Share of value	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". The line for pinning systems relates to data reported by U.S. producers *** detailing their imports of pinning systems subsequently sold as part of their U.S.-produced LD graphite electrodes; the line for unfinished LD graphite electrodes relates to data reported by U.S. producer *** based on its imports under "other HTS numbers" (unfinished graphite electrodes); and finally, the line for finished LD graphite electrodes is based on the differences between what those three companies reported and overall imports from nonsubject sources. The share of quantity and value are to all import sources.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[11] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[12] Neither imports from China nor imports from India accounted for less than 3 percent of the quantity of LD graphite electrodes imported into the United States from February 2025 through January 2026.

Table 4.5 LD graphite electrodes: U.S. imports in the twelve-month period preceding the filing of the petition, February 2025 through January 2026

Quantity in metric tons; share in percent

Source of imports	Quantity	Share of quantity
China	***	***
India	***	***
All other sources	***	***
All import sources	41,068	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

[11] Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

[12] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Cumulation considerations

In assessing whether imports should be cumulated, the Commission determines whether U.S. imports from the subject countries compete with each other and with the domestic like product and has generally considered four factors: (1) fungibility, (2) presence of sales or offers to sell in the same geographical markets, (3) common or similar channels of distribution, and (4) simultaneous presence in the market. Information regarding channels of distribution, market areas, and interchangeability appears in Part 2. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

Fungibility

Table 4.6 presents data on U.S. producers' and U.S. importers' U.S. shipments, by source and product type and power level in 2025. Almost all shipments in 2025 were ultra high power ("UHP") finished LD graphite electrodes, while a small quantity of shipments were high power ("HP") finished LD graphite electrodes.[13] Shipments of pinning or connecting systems shipped or sold separately made up a small share of total shipments in 2025, all from nonsubject sources.[14] There were no reported shipments of unfinished LD graphite electrodes[15] or finished LD graphite electrodes of other power levels.

[13] A representative from Tokai Carbon stated that LD graphite electrodes are most frequently produced to the UHP standard because of the demands of the furnace but may also be produced to HP standard for certain ladle metallurgical furnace applications. Conference transcript, pp. 11 and 61 (McCloy).

[14] U.S. producers ***. Counsel for the petitioners stated that pinning systems are always sold with the LD graphite electrode itself because the pinning system and the LD graphite electrode must be of the same quality in order to mitigate stress on the joint during thermal expansion. A representative from Resonac further explained that there is no separate market for pinning systems and that LD graphite electrode producers produce their own pins, although there is no production in the U.S. U.S. producer Resonac produces its pins in Japan. See correspondence with ***, March 24, 2026, and conference transcript, pp. 42 and 43 (Luberda, Duenas).

[15] U.S. importer *** imports unfinished (graphitized but not machined) LD graphite electrodes and machines them into finished LD graphite electrodes, at which point they are shipped to customers. These are classified in table 4.7 as shipments of finished LD graphite electrodes.

Table 4.6 LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by product type and power level, 2025

Quantity in metric tons

Source	Unfinished LD graphite electrodes	High power finished LD graphite electrodes	Ultra high power finished LD graphite electrodes	Finished LD graphite electrodes of other power levels	Pinning or connecting systems shipped or sold separately	All product types
U.S. producers	***	***	***	***	***	***
China	***	***	***	***	***	***
India	***	***	***	***	***	***
All subject sources	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
All sources	***	***	***	***	***	***

Table continued.

Table 4.6 (Continued) LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by product type and power level, 2025

Share across in percent

Source	Unfinished LD graphite electrodes	High power finished LD graphite electrodes	Ultra high power finished LD graphite electrodes	Finished LD graphite electrodes of other power levels	Pinning or connecting systems shipped or sold separately	All product types
U.S. producers	***	***	***	***	***	100.0
China	***	***	***	***	***	100.0
India	***	***	***	***	***	100.0
All subject sources	***	***	***	***	***	100.0
Nonsubject sources	***	***	***	***	***	100.0
All import sources	***	***	***	***	***	100.0
All sources	***	***	***	***	***	100.0

Table continued.

Table 4.6 (Continued) LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by product type and power level, 2025

Share down in percent

Source	Unfinished LD graphite electrodes	High power finished LD graphite electrodes	Ultra high power finished LD graphite electrodes	Finished LD graphite electrodes of other power levels	Pinning or connecting systems shipped or sold separately	All product types
U.S. producers	***	***	***	***	***	***
China	***	***	***	***	***	***
India	***	***	***	***	***	***
All subject sources	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
All sources	—	100.0	100.0	—	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Note, U.S. importer *** imports some unfinished LD graphite electrodes from nonsubject sources as well as pinning or connecting systems; however, since these data are reported on a U.S. shipment basis, that firm's data are properly reported in this table as finished LD graphite electrodes as this importer machined these imported products domestically prior to sale to its U.S. customers. Additionally, these data are undercounted due to the Commission having had to rely on a foreign producer's exports to the United States to construct a U.S. importers' questionnaire response for one U.S. importer (***) importing LD graphite electrodes from India.

Table 4.7 and figure 4.2 present data on U.S. producers’ and U.S. importers’ U.S. shipments of finished LD graphite electrodes, by source and outer diameter in 2025. The largest share of U.S. shipments were LD graphite electrodes with an outer diameter between 24 and 28 inches, while LD graphite electrodes with an outer diameter less than 24 inches and those greater than 28 inches made up smaller shares. The largest share of U.S. shipments from U.S. producers were LD graphite electrodes with an outer diameter between 24 and 28 inches.[16] The largest share of U.S. shipments from subject sources were LD graphite electrodes with an outer diameter of less than 24 inches, while the largest share of U.S. shipments from nonsubject sources were LD graphite electrodes with an outer diameter between 24 and 28 inches.

[16] A representative from Tokai Carbon stated that LD graphite electrodes with an outer diameter of 24 inches make up the largest share of the market, and that there are more furnaces that use 24-inch diameter graphite electrodes in the United States than other sizes. A representative from Resonac further explained that this holds true for the global market for LD graphite electrodes. Conference transcript, pp. 74 and 87 (McCloy, Duenas).

Table 4.7 LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by outer diameter, 2025

Quantity in metric tons

Source	Outer diameter less than 24 inches	Outer diameter between 24 and 28 inches	Outer diameter greater than 28 inches	All outer diameters
U.S. producers	***	***	***	***
China	***	***	***	***
India	***	***	***	***
All subject sources	***	***	***	***
Nonsubject sources	***	***	***	***
All import sources	***	***	***	***
All sources	***	***	***	***

Table continued.

Table 4.7 (Continued) LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by outer diameter, 2025

Share across in percent

Source	Outer diameter less than 24 inches	Outer diameter between 24 and 28 inches	Outer diameter greater than 28 inches	All outer diameters
U.S. producers	***	***	***	100.0
China	***	***	***	100.0
India	***	***	***	100.0
All subject sources	***	***	***	100.0
Nonsubject sources	***	***	***	100.0
All import sources	***	***	***	100.0
All sources	***	***	***	100.0

Table continued.

Table 4.7 (Continued) LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by outer diameter, 2025

Share down in percent

Source	Outer diameter less than 24 inches	Outer diameter between 24 and 28 inches	Outer diameter greater than 28 inches	All outer diameters
U.S. producers	***	***	***	***
China	***	***	***	***
India	***	***	***	***
All subject sources	***	***	***	***
Nonsubject sources	***	***	***	***
All import sources	***	***	***	***
All sources	100.0	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Figure 4.2 LD graphite electrodes: U.S. producers' and U.S. importers' U.S. shipments, by source and by outer diameter, 2025

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Geographical markets

Table 4.8 presents data on U.S. imports of LD graphite electrodes, by source and border of entry. Imports of LD graphite electrodes from China entered primarily through northern borders of entry and imports of LD graphite electrodes from India entered primary through eastern borders of entry, while LD graphite electrodes from nonsubject sources primarily entered through southern borders of entry in 2025. There were no reported imports of LD graphite electrodes from India that entered through southern or western borders of entry in 2025.

Table 4.8 LD graphite electrodes: U.S. imports by source and border of entry, 2025

Quantity in metric tons

Source	East	North	South	West	All borders
China	1,151	2,224	158	199	3,732
India	682	110	—	—	792
Subject sources	1,833	2,334	158	199	4,524
Nonsubject sources	3,997	316	11,313	2,219	17,845
All import sources	5,830	2,649	11,471	2,418	22,369

Table continued.

Table 4.8 (Continued) LD graphite electrodes: U.S. imports by source and border of entry, 2025

Share in percent

Source	East	North	South	West	All borders
China	30.8	59.6	4.2	5.3	100.0
India	86.2	13.8	—	—	100.0
Subject sources	40.5	51.6	3.5	4.4	100.0
Nonsubject sources	22.4	1.8	63.4	12.4	100.0
All import sources	26.1	11.8	51.3	10.8	100.0

Table continued.

Table 4.8 (Continued) LD graphite electrodes: U.S. imports by source and border of entry, 2025

Share in percent

Source	East	North	South	West	All borders
China	19.7	83.9	1.4	8.2	16.7
India	11.7	4.1	—	—	3.5
Subject sources	31.4	88.1	1.4	8.2	20.2
Nonsubject sources	68.6	11.9	98.6	91.8	79.8
All import sources	100.0	100.0	100.0	100.0	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 8545.11.0020, accessed February 25, 2026. Imports are based on the imports for consumption data series. Data for India is understated due to U.S. importers *** importing finished LD graphite electrodes, U.S. importer *** importing unfinished LD graphite electrodes, and U.S. producers *** importing pinning and connecting systems all under other HTS numbers.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Presence in the market

Table 4.9 and figures 4.3 and 4.4 present monthly data on U.S. imports of LD graphite electrodes, by source and month. Imports of LD graphite electrodes from China were present in the market in all months from 2023 to 2025 except June 2025. Imports of LD graphite electrodes from India were present in the market in all months from 2023 to 2025 except June, July, October, and December 2025.

Table 4.9 LD graphite electrodes: Quantity of U.S. imports, by source and month

Quantity in metric tons

Year	Month	China	India	Subject sources	Nonsubject sources	All import sources
2023	January	3,541	392	3,933	9,894	13,827
2023	February	1,806	462	2,268	8,344	10,612
2023	March	1,603	665	2,268	9,753	12,021
2023	April	2,451	93	2,544	9,926	12,471
2023	May	2,835	461	3,296	9,034	12,330
2023	June	3,635	451	4,086	12,929	17,016
2023	July	280	87	367	11,928	12,295
2023	August	524	183	707	15,894	16,601
2023	September	216	363	579	11,597	12,175
2023	October	1,346	449	1,795	10,427	12,222
2023	November	1,083	623	1,706	10,807	12,513
2023	December	1,210	375	1,586	6,659	8,245
2024	January	456	2,176	2,631	3,123	5,755
2024	February	2,408	283	2,691	5,973	8,664
2024	March	1,440	719	2,158	11,047	13,205
2024	April	2,550	270	2,820	3,122	5,942
2024	May	964	63	1,027	5,414	6,441
2024	June	1,732	441	2,173	9,207	11,380
2024	July	1,255	129	1,384	7,895	9,279
2024	August	104	136	241	7,239	7,480
2024	September	122	191	313	9,926	10,239
2024	October	539	75	613	5,337	5,951
2024	November	2,576	271	2,847	6,125	8,972
2024	December	3,857	364	4,222	10,715	14,937

Table continued.

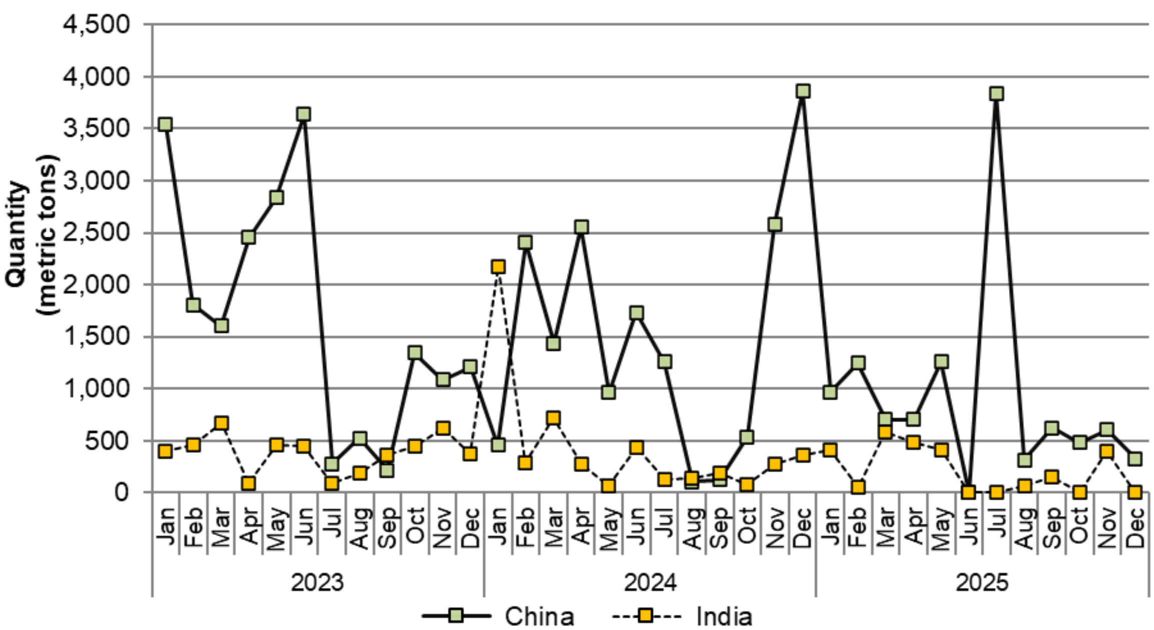
Table 4.9 (Continued) LD graphite electrodes: Quantity of U.S. imports, by source and month

Year	Month	China	India	Subject sources	Nonsubject sources	All import sources
2025	January	971	405	1,376	4,285	5,661
2025	February	1,247	59	1,306	5,989	7,295
2025	March	701	583	1,284	8,823	10,107
2025	April	705	483	1,188	5,250	6,438
2025	May	1,259	415	1,674	9,707	11,381
2025	June	—	—	—	9,180	9,180
2025	July	3,838	—	3,838	8,403	12,241
2025	August	315	59	374	6,877	7,251
2025	September	626	153	779	7,263	8,042
2025	October	481	—	481	1,576	2,057
2025	November	605	402	1,007	8,933	9,940
2025	December	327	—	327	8,249	8,576

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 8545.11.0020, accessed February 25, 2026. Imports are based on the imports for consumption data series. Data for India is understated due to U.S. importers *** importing finished LD graphite electrodes, U.S. importer *** importing unfinished LD graphite electrodes, and U.S. producers *** importing pinning and connecting systems all under other HTS numbers.

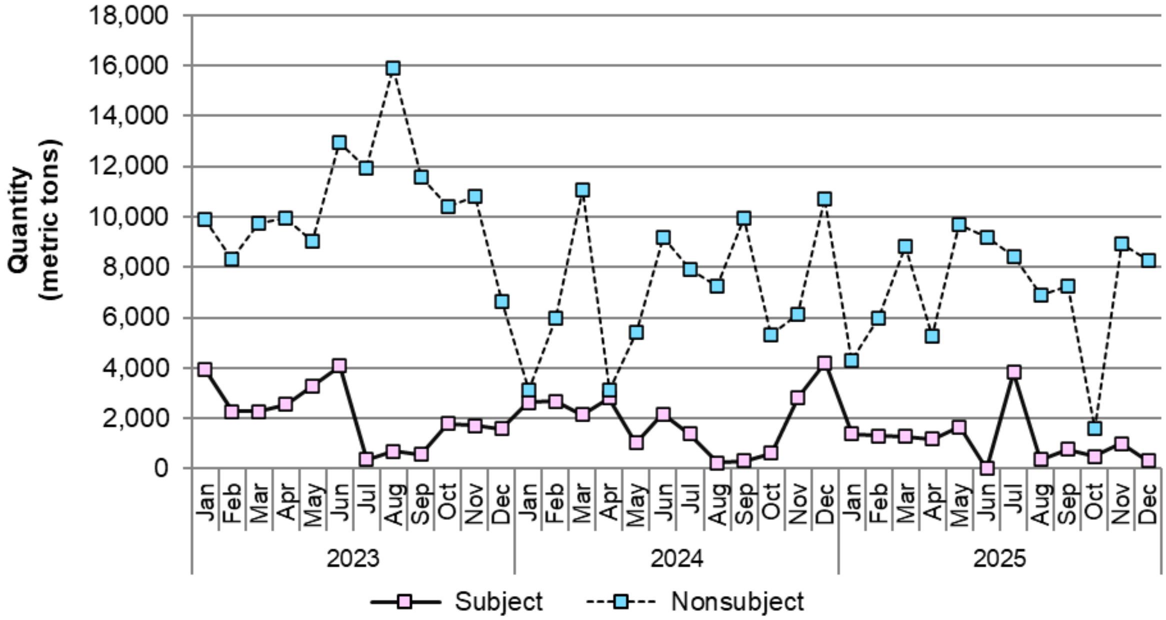
Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Figure 4.3 LD graphite electrodes: U.S. imports from individual subject sources, by month



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 8545.11.0020, accessed February 25, 2026. Imports are based on the imports for consumption data series. Data for India is understated due to U.S. importers *** importing finished LD graphite electrodes, U.S. importer *** importing unfinished LD graphite electrodes, and U.S. producers *** importing pinning and connecting systems all under other HTS numbers.

Figure 4.4 LD graphite electrodes: U.S. imports from aggregated subject and nonsubject sources, by month



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 8545.11.0020, accessed February 25, 2026. Imports are based on the imports for consumption data series. Data for India is understated due to U.S. importers *** importing finished LD graphite electrodes, U.S. importer *** importing unfinished LD graphite electrodes, and U.S. producers *** importing pinning and connecting systems all under other HTS numbers.

Apparent U.S. consumption and market shares

Quantity

Table 4.10 and figure 4.5 present data on apparent U.S. consumption and U.S. market shares by quantity for LD graphite electrodes. The quantity of U.S. consumption was relatively stable between 2023 and 2024 then decreased in 2025. The decrease in apparent U.S. consumption reflects the decrease in U.S. producers' U.S. shipments from 2024 to 2025, which was larger by quantity than the increase in U.S. importers' U.S. shipments from 2024 to 2025.

U.S. producers' U.S. shipments, which made up a majority share of apparent consumption in 2023 and 2024, increased from 2023 to 2024 then decreased to a slight minority share of apparent consumption in 2025. The market share of imports from China decreased yearly from 2023 to 2025 while the market share of imports from India increased yearly. Overall, the market share of imports from subject sources increased from 2023 to 2025. The market share of imports from nonsubject sources, which made up a minority share of apparent U.S. consumption by quantity, fluctuated upward from 2023 to 2025.

Table 4.10 LD graphite electrodes: Apparent U.S. consumption and market shares based on quantity, by source and period

Quantity in metric tons; shares in percent

Source	Measure	2023	2024	2025
U.S. producers' U.S. shipments	Quantity	***	***	***
U.S. producers' imports of pinning systems	Quantity	***	***	***
U.S. producers' adjusted U.S. shipments	Quantity	***	***	***
China	Quantity	***	***	***
India	Quantity	***	***	***
Subject sources	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	***	***	***
All sources	Quantity	***	***	***
U.S. producers' U.S. shipments	Share	***	***	***
U.S. producers' imports of pinning systems	Share	***	***	***
U.S. producers' adjusted U.S. shipments	Share	***	***	***
China	Share	***	***	***
India	Share	***	***	***
Subject sources	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Producer data ("U.S. producers' U.S. shipments") include the weight (quantity) and value of the pin as part of the entire finished electrode. However, the weight and value of the pin is also captured in U.S. import data. Accordingly, the quantity and value of imported pin were subtracted from the producer data to avoid double counting. These data are identified as "adjusted U.S. shipments" in Part 4 of this report and Appendix C.

Figure 4.5 LD graphite electrodes: Apparent U.S. consumption based on quantity, by source and period

*   *   *   *   *   *   *

Source: Compiled from data submitted in response to Commission questionnaires

Value

Table 4.11 and figure 4.6 present data on apparent U.S. consumption and U.S. market shares by value for LD graphite electrodes. The value of apparent U.S. consumption decreased yearly from 2023 to 2025. U.S. producers' U.S. shipments made up a large majority share of apparent consumption by value in 2023 and 2024 and a slight majority share in 2025. The market share of imports from China decreased yearly from 2023 to 2025 while the market share of imports from India increased yearly. Overall, the market share of imports from subject sources, increased from 2023 to 2025. The market share of imports from nonsubject sources, which made up a minority share of apparent U.S. consumption by value, fluctuated upward from 2023 to 2025.

Table 4.11 LD graphite electrodes: Apparent U.S. consumption and market shares based on value, by source and period

Value in 1,000 dollars; shares in percent

Source	Measure	2023	2024	2025
U.S. producers' U.S. shipments	Value	***	***	***
U.S. producers' imports of pinning systems	Value	***	***	***
U.S. producers' adjusted U.S. shipments	Value	***	***	***
China	Value	***	***	***
India	Value	***	***	***
Subject sources	Value	***	***	***
Nonsubject sources	Value	***	***	***
All import sources	Value	***	***	***
All sources	Value	***	***	***
U.S. producers' U.S. shipments	Share	***	***	***
U.S. producers' imports of pinning systems	Share	***	***	***
U.S. producers' adjusted U.S. shipments	Share	***	***	***
China	Share	***	***	***
India	Share	***	***	***
Subject sources	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Producer data ("U.S. producers' U.S. shipments") include the weight (quantity) and value of the pin as part of the entire finished electrode. However, the weight and value of the pin is also captured in U.S. import data. Accordingly, the quantity and value of imported pin were subtracted from the producer data to avoid double counting. These data are identified as "adjusted U.S. shipments" in Part 4 of this report and appendix C.

Figure 4.6 LD graphite electrodes: Apparent U.S. consumption based on value, by source and period

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Part 5: Pricing data

Factors affecting prices

Raw material costs

LD graphite electrodes are made from artificial graphite generated by the thermal graphitization of calcine petroleum needle coke or calcine pitch needle coke, and coal tar pitch, followed by machining and the fitting of pinning systems (connecting pins). The prices of petroleum needle coke dropped sharply after July 2023 (the earliest available data), then partially recovered in May 2024, with a second abrupt increase beginning in February 2025 and enduring through December 2025 (figure 5.1 and table 5.1).

Raw materials, as a share of U.S. producers' cost of goods sold ("COGS"), declined from *** percent in 2023 to *** percent in 2025. Connecting pins are a component of the raw material costs of LD graphite electrodes, as U.S. producers do not sell graphite electrodes without connecting pins.[1] U.S. producers reported that the cost of connecting pins for LD graphite electrodes ranged from *** to *** percent of the total COGS, and U.S. importer UKCG reported that connecting pins account for between *** to *** percent of total COGS.[2] [3]

[1] Conference transcript, p. 79 (McCloy and Duenas).
[2] Petitioners' postconference brief, Exhibit 1, p. 18.
[3] UKGC's postconference brief, response to questions, p. 8.

Figure 5.1 LD graphite electrodes: Indexed material prices for petroleum needle coke 0.5% S, ex-works China, by month

* * * * * * *

Source: ***, retrieved February 17, 2026.

Table 5.1 LD graphite electrodes: Indexed material prices for petroleum needle coke 0.5% S, ex-works China, by month

Month	2023	2024	2025
January	NA	***	***
February	NA	***	***
March	NA	***	***
April	NA	***	***
May	NA	***	***
June	NA	***	***
July	100.0	***	***
August	***	***	***
September	***	***	***
October	***	***	***
November	***	***	***
December	***	***	***

Source: ***, retrieved February 17, 2026.

Transportation costs to the U.S. market

Transportation costs for LD graphite electrodes shipped from the subject countries to the United States averaged 6.7 percent for China, and 5.2 percent for India during 2025. These estimates were derived from official import data and represent the transportation and other charges on imports.[4]

U.S. inland transportation costs

All responding U.S. producers and importers reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs ranged from *** to *** percent while most importers reported costs of 0.7 to 5.0 percent.

Pricing practices

Pricing methods

U.S. producers and importers reported setting prices using transaction-by-transaction negotiations, contracts, and other methods (table 5.2). U.S. producer *** reported setting prices using sales agreements with varying time durations. Importer *** reported that prices are determined based on supplier costs, logistics costs, inventory carrying costs, and technical service provision overhead. It also reported that pricing may vary depending on electrode diameter, technical specifications, and delivery requirements.

Table 5.2 LD graphite electrodes: Count of U.S. producers' and importers' reported price setting methods

Method	U.S. producers	Importers
Transaction-by-transaction	***	7
Contract	***	5
Set price list	***	0
Other	***	3
Responding firms	3	9

Source: Compiled from data submitted in response to Commission questionnaires.

Note: The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

[4] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2025 and then dividing by the customs value based on the HTS statistical reporting number 85451.10.0200.

U.S. producers reported selling the largest quantity of their LD graphite electrodes under short-term contracts but also reported selling under annual and long-term contracts. Importers reported selling the vast majority of LD graphite electrodes under short-term contracts (table 5.3).

Table 5.3 LD graphite electrodes: U.S. producers’ and importers’ shares of commercial U.S. shipments by type of sale, 2025

Share in percent

Type of sale	U.S. producers	Subject importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Because of rounding, figures may not add to the totals shown.

U.S. producers reported that short-term contracts typically last between 90 and 180 days. U.S. producers reported that they can renegotiate prices under short-term contracts while fixing quantities and, in some instances, price. None of the U.S. producers reported indexing prices in short-term contracts to raw materials. U.S. producers reported renegotiating prices, fixing quantities, and not indexing prices to raw materials in annual contracts. U.S. producers’ responses were mixed with regard to renegotiating prices, fixing quantities, and indexing prices to raw materials in long-term contracts.

All responding importers reported that they do not renegotiate prices, fix both prices and quantities, and do not index prices to raw materials for short-term, annual, and long-term contracts.

Sales terms and discounts

U.S. producers and importers typically quote prices on a delivered basis. Producers and importers reported offering quantity, total volume, and other discounts. Other discounts include early payment discounts and pricing adjustments based on changes in logistics costs, tariffs, delivery schedules, and inventory management requirements.

Price and purchase cost data

The Commission requested U.S. producers and importers provide quarterly data for the total quantity and f.o.b. value of the following LD graphite electrode products shipped to unrelated U.S. customers during January 2023 to December 2025. Firms that imported these products from China and India for their own use were requested to provide import purchase cost data.[5]

Product 1.-- UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Product 2.-- UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Product 3.-- UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Product 4.-- UHP graphite electrodes, 700 mm (28 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Price data

Two U.S. producers and four importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[6] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of LD graphite electrodes, *** percent of reported U.S. commercial shipments from China, and *** percent of reported U.S. commercial shipments from India from January 2023 to December 2025.[7] Price data for products 1 to 4 are presented in tables 5.4 to 5.7 and figures 5.2 to 5.5.

[5] Importer *** reported that it acts as an independent, third-party importer of record service providing CBP compliance and facilitating logistics between Indian producer HEG and its end-customers. Prices for LD graphite electrodes for these shipments are set directly between HEG and their customers. Importer *** was unable to provide pricing or purchase cost data for these imports and thus the data for these imports were unavailable for presentation in this report.

[6] Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[7] Pricing coverage is based on commercial shipments reported in questionnaires. In addition, Importer *** did not provide either commercial shipment or price data.

Table 5.4 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and quarter

Price in dollars per metric tons, quantity in metric tons, margin in percent.

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	India price	India quantity	India margin
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Figure 5.2 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by source and quarter

Price of product 1

*   *   *   *   *   *   *

Volume of product 1

*   *   *   *   *   *   *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Table 5.5 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and quarter

Price in dollars per metric tons, quantity in metric tons, margin in percent.

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	India price	India quantity	India margin
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Figure 5.3 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by source and quarter

Price of product 2

* * * * * * *

Volume of product 2

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 2: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Table 5.6 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by source and quarter

Price in dollars per metric tons, quantity in metric tons, margin in percent.

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	India price	India quantity	India margin
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Figure 5.4 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by source and quarter

Price of product 3

* * * * * * *

Volume of product 3

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Table 5.7 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by source and quarter

Price in dollars per metric tons, quantity in metric tons, margin in percent.

Period	U.S. price	U.S. quantity	China price	China quantity	China margin	India price	India quantity	India margin
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: UHP graphite electrodes, 700 mm (28 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Figure 5.5 LD graphite electrodes: Weighted-average f.o.b. prices and quantities of domestic and imported product 4, by source and quarter

Price of product 4

* * * * * * *

Volume of product 4

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 4: UHP graphite electrodes, 700 mm (28 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Import purchase cost data

Two importers reported useable import purchase cost data for products 1 and 3.[8] Purchase cost data reported by these firms accounted for *** percent of reported imports from India. Landed duty-paid purchase cost data for imports from India are presented in tables 5.8 and 5.9, along with U.S. producers' sales prices.[9] [10]

Importers reporting import purchase cost data (***) were asked to provide additional information regarding the costs and benefits of importing LD graphite electrodes themselves.

Neither importer reported incurring additional costs beyond landed duty-paid costs by importing LD graphite electrodes themselves rather than purchasing from a U.S. producer or U.S. importer.

Importer *** reported comparing the cost of importing to the cost of purchasing from both U.S. producers and importers in determining whether to import LD graphite electrodes. Importer *** indicated that it did not compare such costs.

Importers identified benefits from importing LD graphite electrodes themselves instead of purchasing from U.S. producers or importers, including having an additional source for smaller 12-inch diameter electrodes and ensuring the continuity of operations for U.S. steel producers when the availability of domestic product is limited or lead times are extended.

Firms were also asked whether the import costs (both excluding and including additional costs) of LD graphite electrodes they imported are lower than the price of purchasing LD graphite electrodes from a U.S. producer or importer. Importer *** importers reported that the import costs of LD graphite electrodes are lower than the price of purchasing LD graphite electrodes from a U.S. producer or importer excluding the additional costs associated with importing. Neither importer reported that the import cost of LD graphite electrodes it imported are lower than the price of purchasing LD graphite electrodes from a U.S. producer or importer, including the costs associated with directly importing. Neither of the responding importers reported the amounts they saved by importing LD graphite electrodes rather than purchasing from a U.S producer or importer.

[8] Importers did not report purchase cost data for products 2 and 4.

[9] LDP import value does not include any potential additional costs that a purchaser may incur by importing rather than purchasing from another importer or U.S. producer. Price-cost differentials are based on LDP import values whereas margins of underselling/overselling are based on importer sales prices.

[10] Importers did not report any purchase cost data for products from China.

Table 5.8 LD graphite electrodes: Import landed duty-paid purchase costs and domestic prices, quantities of product 1, and price-cost differentials, by quarter

Price and LDP value in dollars per metric ton, quantity in metric tons, price-cost differential in percent.

Period	U.S. price	U.S. quantity	China LDP unit cost	China quantity	China Price-cost differential	India LDP unit cost	India quantity	India Price-cost differential
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Note: U.S. producer price data is the same as that presented in table 5.4.

Figure 5.6 LD graphite electrodes: U.S. producer prices and import purchase costs, and quantities, of product 1, by quarter

U.S. price and import purchase cost of product 1

***   *   *   *   *   *   ***

Volume of product 1

***   *   *   *   *   *   ***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 1: UHP graphite electrodes, 450 mm (18 inches) nominal diameter x 2,400mm (96 inches) nominal length, with connecting pin.

Table 5.9 LD graphite electrodes: Import landed duty-paid purchase costs and domestic prices, quantities of product 3, and price-cost differentials, by quarter

Price and LDP value in dollars per metric ton, quantity in metric tons, price-cost differential in percent.

Period	U.S. price	U.S. quantity	China LDP unit cost	China quantity	China Price-cost differential	India LDP unit cost	India quantity	India Price-cost differential
2023 Q1	***	***	***	***	***	***	***	***
2023 Q2	***	***	***	***	***	***	***	***
2023 Q3	***	***	***	***	***	***	***	***
2023 Q4	***	***	***	***	***	***	***	***
2024 Q1	***	***	***	***	***	***	***	***
2024 Q2	***	***	***	***	***	***	***	***
2024 Q3	***	***	***	***	***	***	***	***
2024 Q4	***	***	***	***	***	***	***	***
2025 Q1	***	***	***	***	***	***	***	***
2025 Q2	***	***	***	***	***	***	***	***
2025 Q3	***	***	***	***	***	***	***	***
2025 Q4	***	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Note: U.S. producer price data is the same as that presented in table 5.6.

Figure 5.7 LD graphite electrodes: U.S. producer prices and import purchase costs, and quantities, of product 3, by quarter

U.S. price and import purchase cost of product 3

* * * * * * *

Volume of product 3

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Product 3: UHP graphite electrodes, 600 mm (24 inches) nominal diameter x 2,700mm (110 inches) nominal length, with connecting pin.

Price and purchase cost trends

In general, prices decreased during January 2023 to December 2025. Table 5.10 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from *** to *** percent during January 2023 to December 2025 while import price decreases ranged from *** to *** percent. There was insufficient purchase cost data to determine trends.

Table 5.10 LD graphite electrodes: Summary of price and cost data, by product and source, January 2023 through December 2025

Volume in metric tons, price and cost in dollars per metric ton

Product	Source	Number of quarters	Volume of shipments	Low price/ cost	High price/ cost	First quarter price/ cost	Last quarter price/ cost	Percent change in price/cost over period
Product 1	United States	12	***	***	***	***	***	***
Product 1	China price	12	***	***	***	***	***	***
Product 1	China cost	1	***	***	***	***	***	***
Product 1	India price	—	***	***	***	***	***	***
Product 1	India cost	3	***	***	***	***	***	***
Product 2	United States	12	***	***	***	***	***	***
Product 2	China price	—	***	***	***	***	***	***
Product 2	China cost	—	***	***	***	***	***	***
Product 2	India price	—	***	***	***	***	***	***
Product 2	India cost	—	***	***	***	***	***	***
Product 3	United States	12	***	***	***	***	***	***
Product 3	China price	12	***	***	***	***	***	***
Product 3	China cost	—	***	***	***	***	***	***
Product 3	India price	—	***	***	***	***	***	***
Product 3	India cost	2	***	***	***	***	***	***
Product 4	United States	12	***	***	***	***	***	***
Product 4	China price	1	***	***	***	***	***	***
Product 4	China cost	—	***	***	***	***	***	***
Product 4	India price	—	***	***	***	***	***	***
Product 4	India cost	—	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Percent change is the change from the first quarter to the last quarter of the data collection

Figure 5.8 LD graphite electrodes: Indexed U.S. producer prices, by quarter

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

Table 5.11 LD graphite electrodes: Indexed U.S. producer prices, by quarter

Index in percent, 2023 Q1 = 100.0 percent

Period	Product 1	Product 2	Product 3	Product 4
2023 Q1	100.0	100.0	100.0	100.0
2023 Q2	***	***	***	***
2023 Q3	***	***	***	***
2023 Q4	***	***	***	***
2024 Q1	***	***	***	***
2024 Q2	***	***	***	***
2024 Q3	***	***	***	***
2024 Q4	***	***	***	***
2025 Q1	***	***	***	***
2025 Q2	***	***	***	***
2025 Q3	***	***	***	***
2025 Q4	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Figure 5.9 LD graphite electrodes: Indexed U.S. importer prices, by quarter

*   *   *   *   *   *   *

Source: Compiled from data submitted in response to Commission questionnaires.

Table 5.12 LD graphite electrodes: Indexed subject U.S. importer prices, by quarter

Index in percent, 2023 Q1= 100.0 percent

Period	Product 1	Product 2	Product 3	Product 4
2023 Q1	100.0	—	100.0	—
2023 Q2	***	***	***	***
2023 Q3	***	***	***	***
2023 Q4	***	***	***	***
2024 Q1	***	***	***	***
2024 Q2	***	***	***	***
2024 Q3	***	***	***	***
2024 Q4	***	***	***	***
2025 Q1	***	***	***	***
2025 Q2	***	***	***	***
2025 Q3	***	***	***	***
2025 Q4	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Note: There were insufficient instances of purchase costs data to form an index.

Price and purchase cost comparisons

Price comparisons

As shown in table 5.14, prices for product imported from China were below those for U.S.-produced product in all 25 instances (*** metric tons); margins of underselling ranged from *** to *** percent. The price for product imported from India was above those for U.S.-produced product in one instance (*** metric tons) with a margin of overselling of *** percent above prices for domestic product.

Table 5.13 LD graphite electrodes: Instances of underselling and overselling and the range and average of margins, by product

Quantity in metric tons; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	12	***	***	***	***
Product 2	Underselling	—	***	***	***	***
Product 3	Underselling	12	***	***	***	***
Product 4	Underselling	1	***	***	***	***
Total	Underselling	25	***	***	***	***
Product 1	Overselling	1	***	***	***	***
Product 2	Overselling	—	***	***	***	***
Product 3	Overselling	—	***	***	***	***
Product 4	Overselling	—	***	***	***	***
Total	Overselling	1	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Table 5.14 LD graphite electrodes: Instances of underselling and overselling and the range and average of margins, by source

Quantity in metric tons; margin in percent

Source	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
China	Underselling	25	***	***	***	***
India	Underselling	—	***	***	***	***
Total	Underselling	25	***	***	***	***
China	Overselling	—	***	***	***	***
India	Overselling	1	***	***	***	***
Total	Overselling	1	***	***	***	***

Source**:** Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Table 5.15 LD graphite electrodes: Instances of underselling and overselling and the range and average of margins, by year

Quantity in metric tons; margin in percent

Year	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
2023	Underselling	9	***	***	***	***
2024	Underselling	8	***	***	***	***
2025	Underselling	8	***	***	***	***
Total, all years	Underselling	25	***	***	***	***
2023	Overselling	1	***	***	***	***
2024	Overselling	—	***	***	***	***
2025	Overselling	—	***	***	***	***
Total, all years	Overselling	1	***	***	***	***

Source**:** Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Price-cost comparisons

As shown in table 5.17, there were *** reported instances of imports of LD graphite electrodes from China for consumption or internal use. Landed duty-paid costs for LD graphite electrodes imported from India were below the sales price for U.S.-produced product in all 5 instances (*** metric tons); price-cost differentials ranged from *** to *** percent.

Table 5.16 LD graphite electrodes: Instances of lower and higher import purchase costs and the range and average of price-cost differentials, by product

Quantity in metric tons; price-cost differential in percent

Product	Type	Number of quarters	Quantity	Average price-cost differential	Min price-cost differential	Max price-cost differential
Product 1	Lower than U.S. price	3	***	***	***	***
Product 2	Lower than U.S. price	—	***	***	***	***
Product 3	Lower than U.S. price	2	***	***	***	***
Product 4	Lower than U.S. price	—	***	***	***	***
Total	Lower than U.S. price	5	***	***	***	***
Product 1	Higher than U.S. price	—	***	***	***	***
Product 2	Higher than U.S. price	—	***	***	***	***
Product 3	Higher than U.S. price	—	***	***	***	***
Product 4	Higher than U.S. price	—	***	***	***	***
Total	Higher than U.S. price	—	***	***	***	***

Source**:** Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Table 5.17 LD graphite electrodes: Instances of lower and higher import purchase costs and the range and average of price-cost differentials, by source

Quantity in metric tons; price-cost differential in percent

Source	Type	Number of quarters	Quantity	Average price-cost differential	Min price-cost differential	Max price-cost differential
China	Lower than U.S. price	—	***	***	***	***
India	Lower than U.S. price	5	***	***	***	***
Total	Lower than U.S. price	5	***	***	***	***
China	Higher than U.S. price	—	***	***	***	***
India	Higher than U.S. price	—	***	***	***	***
Total	Higher than U.S. price	—	***	***	***	***

Source**:** Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Table 5.18 LD graphite electrodes: Instances of lower and higher import purchase costs and the range and average of price-cost differentials, by year

Quantity in metric tons; margin in percent

Year	Type	Number of quarters	Quantity	Average price-cost differential	Min price-cost differential	Max price-cost differential
2023	Lower than U.S. price	—	***	***	***	***
2024	Lower than U.S. price	2	***	***	***	***
2025	Lower than U.S. price	3	***	***	***	***
Total, all years	Lower than U.S. price	5	***	***	***	***
2023	Higher than U.S. price	—	***	***	***	***
2024	Higher than U.S. price	—	***	***	***	***
2025	Higher than U.S. price	—	***	***	***	***
Total, all years	Higher than U.S. price	—	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Lost sales and lost revenue

The Commission requested that U.S. producers of LD graphite electrodes report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of LD graphite electrodes from China from January 2023 to December 2025. *** reported reducing prices and reported that they had to roll back announced price increases. *** U.S. producers reported that they had lost sales. Two U.S. producers submitted lost sales. The two responding U.S. producers identified 23 firms with which they lost sales or revenue (consisting of 36 lost sales allegations). Of the 36 reported lost sales allegations, one allegation was due to imports from China, 34 lost sales allegations were due to imports from India, and one was due to imports from both China and India.

Staff contacted 20 purchasers and received responses from 11 purchasers. Responding purchasers reported purchasing *** metric tons of LD graphite electrodes during January 2023 to December 2025 (table 5.19).

During 2025, responding purchasers purchased *** percent from U.S. producers, *** percent from China, *** percent from India, and *** percent from nonsubject countries. Purchasers were asked about changes in their purchasing patterns from different sources since 2023. Of the responding purchasers, five reported that their purchases from domestic producers fluctuated up, one reported no change, two reported their purchases fluctuated down, three reported their purchases steadily decreased, and one reported it did not purchase any domestic product. Four purchasers reported that their purchases from China fluctuated down, two reported that their purchases from China steadily decreased, and four did not purchase any Chinese product. Three purchasers reported that their purchases of Indian product steadily increased, three reported their purchases fluctuated up, one reported no change, two reported their purchases fluctuated down, and two reported that they did not purchase Indian product. None of the purchasers reported purchasing LD graphite electrodes from unknown sources.

Of the 11 responding purchasers, 10 reported that, since 2023, they had purchased imported LD graphite electrodes from China and/or India instead of U.S.-produced product. All 10 of these purchasers reported that subject import prices were lower than U.S.-produced product, and five of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Five purchasers estimated the quantity of LD graphite electrodes from China and India purchased instead of domestic product; quantities ranged from *** metric tons to *** metric tons (table 5.20). Purchasers identified quality, technical services, delivery requirements, and diverse sourcing to ensure stable supply as non-price reasons for purchasing imported rather than U.S.-produced product.

Of the 11 responding purchasers, three reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China and India; seven reported that they did not know (table 5.22). The reported estimated price reductions ranged from *** to *** percent. In describing the price reductions, purchaser ***.

Table 5.19 LD graphite electrodes: Purchasers' reported purchases and imports, by firm and source

Quantity in metric tons, change in shares in percentage points

Purchaser	Domestic quantity	Subject quantity	All other quantity	Change in domestic share	Change in subject country share
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: All other includes all other sources and unknown sources. Change is the percentage point change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

Table 5.20 LD graphite electrodes: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in metric tons

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	Yes: 10; No: 1	Yes: 10; No: 0	Yes: 5; No: 5	***	NA

Source: Compiled from data submitted in response to Commission questionnaires.

Table 5.21 LD graphite electrodes: Purchasers' responses to purchasing subject imports instead of domestic product, by source

Count in number of firms reporting; quantity in metric tons

Source	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity
China	6	6	2	***
India	8	8	5	***
Any subject source	10	10	5	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 5.22 LD graphite electrodes: Purchasers' responses to U.S. producer price reductions, by firm

Purchaser	Reported producers lowered prices	Estimated percent of U.S. price reduction	Explanation
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All firms	Yes: 3; No: 1	***	NA

Source: Compiled from data submitted in response to Commission questionnaires.

Table 5.23 LD graphite electrodes: Purchasers' responses to U.S. producer price reductions, by source

Source	Count of purchasers reporting U.S. producers reduced prices	Average percent of estimated U.S. price reduction	Range of percent of estimated U.S. price reductions
China	1	***	***
India	2	***	***
Total / average	3	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. Purchaser *** reported that U.S. producers have displayed inconsistencies that caused it to diversify its supply base in order to mitigate risk. Purchaser *** reported that it has maintained a consistent supply base but decreased purchases due to weaker steel demand. It further reported that it mostly receives pricing quotes from qualified sources. It continued that quality trials can be time-consuming and carry risks which led it to sometimes purchase high priced products. It also reported that it prefers to do business with firms that allow it to shift orders forward or backward when business conditions change and that technical support such as inventory tracking, analyzing consumption rates, improving operational efficiency, and resolving issues are key reasons it chooses to do business with some firms.

Part 6: Financial experience of U.S. producers

Background[1]

GrafTech, Resonac, and Tokai Carbon provided usable financial results on their LD graphite electrodes operations. U.S. producers reported financial data based on a calendar year and on the basis of GAAP (***) or IFRS (***). The U.S. producers' net sales are composed of commercial sales, which during January 1, 2023, through December 31, 2025 represented *** percent of total net sales quantity.[2] Certain U.S. producers reported byproducts.[3]

Figure 6.1 presents each responding firm's share of the total reported net sales quantity for the total market in 2023, 2024, and 2025.[4]

[1] The following abbreviations are used in the tables and/or text of this section: generally accepted accounting principles ("GAAP"), international financial reporting standards ("IFRS"), fiscal year ("FY"), net sales ("NS"), cost of goods sold ("COGS"), selling, general, and administrative expenses ("SG&A expenses"), average unit values ("AUVs"), research and development expenses ("R&D expenses"), and return on assets ("ROA").

[2] Connecting pins are sold together with the electrodes and thus are reflected in net sales. The petitioners' costs of the connecting pins are reflected in the financial information in this section. Conference transcript, pp. 14, 66 (McCloy, Ringel). ***. Email from ***, April 3, 2026.

[3] ***. Email from ***, March 12, 2026. ***. Email from ***, March 12, 2026.

[4] GrafTech idled graphitization operations in June 2024 at its St. Marys plant, its sole U.S. LD graphite electrode facility in St. Marys, Pennsylvania. Table 3.1; petition, p. 3.

Figure 6.1 LD graphite electrodes: U.S. producers' share of net sales quantity from January 1, 2023 through December 31, 2025, by firm

*   *   *   *   *   *   *

Source: Compiled from data submitted in response to Commission questionnaires.

Operations on LD graphite electrodes

Table 6.1 presents data on the U.S. producers' total operations in relation to LD graphite electrodes, while table 6.2 presents corresponding changes in AUVs. Table 6.3 presents selected company-specific financial data.

Table 6.1 LD graphite electrodes: U.S. producers' results of operations, by item and period

Quantity in metric tons; value in 1,000 dollars; ratios in percent

Item	Measure	2023	2024	2025
Total net sales	Quantity	***	***	***
Total net sales	Value	***	***	***
COGS: Raw materials	Value	***	***	***
COGS: Direct labor	Value	***	***	***
COGS: Other factory	Value	***	***	***
COGS: Less by-product revenue	Value	***	***	***
COGS: Total	Value	***	***	***
Gross profit or (loss)	Value	***	***	***
SG&A expenses	Value	***	***	***
Operating income or (loss)	Value	***	***	***
Interest expense	Value	***	***	***
All other expenses	Value	***	***	***
All other income	Value	***	***	***
Net income or (loss)	Value	***	***	***
Depreciation/amortization	Value	***	***	***
Cash flow	Value	***	***	***
COGS: Raw materials	Ratio to NS	***	***	***
COGS: Direct labor	Ratio to NS	***	***	***
COGS: Other factory	Ratio to NS	***	***	***
COGS: Less by-product revenue	Ratio to NS	***	***	***
COGS: Total	Ratio to NS	***	***	***
Gross profit	Ratio to NS	***	***	***
SG&A expense	Ratio to NS	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***
Net income or (loss)	Ratio to NS	***	***	***

Table continued.

Table 6.1 (Continued) LD graphite electrodes: U.S. producers' results of operations, by item and period

Shares in percent; unit values in dollars per metric ton; count in number of firms reporting

Item	Measure	2023	2024	2025
COGS: Raw materials	Share of COGS	***	***	***
COGS: Direct labor	Share of COGS	***	***	***
COGS: Other factory	Share of COGS	***	***	***
COGS: Total	Share of COGS	100.0	100.0	100.0
Total net sales	Unit value	***	***	***
COGS: Raw materials	Unit value	***	***	***
COGS: Direct labor	Unit value	***	***	***
COGS: Other factory	Unit value	***	***	***
COGS: Less byproduct revenue	Unit value	***	***	***
COGS: Total	Unit value	***	***	***
Gross profit or (loss)	Unit value	***	***	***
SG&A expenses	Unit value	***	***	***
Operating income or (loss)	Unit value	***	***	***
Net income or (loss)	Unit value	***	***	***
Operating losses	Count	***	***	***
Net losses	Count	***	***	***
Data	Count	3	3	2

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Share of COGS represents values before the reduction of byproduct. U.S. producers *** reported byproduct revenues.

Table 6.2 LD graphite electrodes: Changes in AUVs between comparison periods

Changes in percent

Item	2023–25	2023–24	2024–25
Total net sales	▼***	▼***	▼***
COGS: Raw materials	▼***	▼***	▼***
COGS: Direct labor	▲***	▼***	▲***
COGS: Other factory	▲***	▲***	▲***
COGS: Less by-product revenue	▼***	▼***	▲***
COGS: Total	▼***	▼***	▼***

Table continued.

Table 6.2 (Continued) LD graphite electrodes: Changes in AUVs between comparison periods

Changes in dollars per metric ton

Item	2023–25	2023–24	2024–25
Total net sales	▼***	▼***	▼***
COGS: Raw materials	▼***	▼***	▼***
COGS: Direct labor	▲***	▼***	▲***
COGS: Other factory	▲***	▲***	▲***
COGS: Less by-product revenue	▼***	▼***	▲***
COGS: Total	▼***	▼***	▼***
Gross profit or (loss)	▼***	▼***	▼***
SG&A expense	▼***	▼***	▼***
Operating income or (loss)	▼***	▼***	▼***
Net income or (loss)	▼***	▼***	▼***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Period changes preceded by a “▲” represent an increase, while period changes preceded by a “▼” represent a decrease.

Table 6.3: LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net sales quantity

Quantity in metric tons

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net sales value

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

COGS

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Gross profit or (loss)

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

SG&A expenses

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Operating income or (loss)

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net income or (loss)

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

COGS to net sales ratio

Ratios in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Gross profit or (loss) to net sales ratio

Ratios in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

SG&A expenses to net sales ratio

Ratios in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Operating income or (loss) to net sales ratio

Ratios in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Net income or (loss) to net sales ratio

Ratios in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit net sales value

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit raw material costs

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit direct labor costs

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit other factory costs

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit byproduct revenue

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit COGS

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit gross profit or (loss)

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit SG&A expenses

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit operating income or (loss)

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Table continued.

Table 6.3 (Continued) LD graphite electrodes: U.S. producers' sales, costs/expenses, and profitability, by firm and period

Unit net income or (loss)

Unit values in dollars per metric ton

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares represent the share of COGS. Zeroes, null values, and undefined calculations are suppressed and shown as "—".

Net sales

As shown in table 6.1, U.S. producers' total net sales quantity and value decreased between 2023 and 2025. Net sales quantity decreased overall by *** percent, and net sales value decreased by *** percent between 2023 and 2025. The industry's total net sales AUV decreased from $*** per metric in 2023 to $*** per metric ton in 2025.

Byproduct revenue decreased from 2023 to 2025. As a ratio to net sales, byproduct revenue ranged from *** percent in interim 2024 to *** percent in 2023.

Cost of goods sold and gross profit or loss

Table 6.1 shows that raw material costs, direct labor, and other factory costs accounted for ***, ***, and *** percent of total market COGS, respectively, in 2025. Total raw material costs decreased from $*** in 2023 to $*** in 2025. On a per metric ton basis, raw material costs decreased irregularly from $*** in 2023 to $*** in

2025. As presented in table 6.3, individual firm's raw materials AUVs varied.[5] As a ratio to net sales, raw material costs decreased from *** percent to *** percent from 2023 to 2025. Table 6.4 presents raw materials, by type.

Table 6.4 LD graphite electrodes: U.S. producers' raw material costs in 2025, by major material inputs

Value in 1,000 dollars; unit values in dollars per metric ton; share of value in percent

Item	Value	Share of value
Calcined petroleum needle coke	***	***
Coal tar pitch	***	***
Anode-grade petroleum coke	***	***
Other material inputs	***	***
All raw materials	***	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

The industry's cost of direct labor decreased from $*** in 2023 to $*** in 2025. The average unit cost of direct labor increased irregularly from $*** from 2023 to $*** in 2025. As a ratio to net sales, direct labor costs increased from *** percent to *** percent for the same period.

Other factory costs decreased irregularly from $*** in 2023 to $*** in 2025. On a per-unit basis, other factory costs increased from $*** in 2023 to $*** in 2025.[6] As a ratio to net sales, other factory costs increased from *** percent to *** percent for the same period.

[5] ***. ***. Email from ***, March 22, 2026. ***. Email from ***, April 3, 2026. ***. Email from ***, March 24, 2026; Petitioner postconference brief, Exh. 1, p. 18.

[6] ***. ***. Email from ***, March 20, 2026. ***. Email from ***, March 23, 2026.

Total COGS decreased by *** percent over the period, from $*** in 2023 to $*** in 2025. The decrease in total COGS was smaller than the decrease in net sales value, which resulted in gross profit decreasing by *** percent over the period, from $*** in 2023 to $*** in 2025.

Total COGS as a ratio to net sales value increased from *** percent in 2023 to *** percent in 2025. Gross profit as a ratio to net sales decreased from *** percent to *** percent from 2023 to 2025.

SG&A expenses and operating income or loss

Table 6.1 shows that SG&A expenses decreased from $*** in 2023 to $*** in 2025. The SG&A expense ratio (SG&A expenses as a share of sales) increased from *** percent in 2023 to *** percent in 2025.[7]

Operating income decreased from $*** in 2023 to *** in 2025. The operating margin (operating income as a ratio to net sales) decreased from *** percent in 2023 to *** percent in 2025.

[7] ***. ***. Email from ***, March 16, 2026; U.S. producers' questionnaire response, section 3.10. ***. Email from ***, March 17, 2026. ***. Email from ***.

All other expenses and net income or loss

Classified below the operating income level are interest expense, other expense, and other income. Interest expenses decreased from $*** in 2023 to $*** in 2025. All other expenses increased irregularly from $*** in 2023 to $*** in 2025. All other income decreased irregularly from $*** in 2023 to $*** in 2025.[8]

Aggregate net income decreased from $*** in 2023 to *** in 2025.[9]

[8] ***. U.S. producers' questionnaire response, section 3.9a. ***. Email from ***, March 17, 2026. ***. Email from ***, March 15, 2026.

[9] A variance analysis is not presented here because of ***.

Capital expenditures and research and development expenses

Table 6.5 presents capital expenditures, by firm. Table 6.6 presents the firms' narrative explanations of the nature, focus, and significance of their capital expenditures. U.S. producers' capital expenditures decreased from 2023 to 2025, and R&D expenses never exceeded $*** per year.

Table 6.5 LD graphite electrodes: U.S. producers' capital expenditures, by firm and period

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 6.6 LD graphite electrodes: U.S. producers' narrative descriptions of their capital expenditures, by firm

Firm	Narrative on capital expenditures
GrafTech	***
Resonac	***
Tokai Carbon	***

Source: Compiled from data submitted in response to Commission questionnaires.

Assets and return on assets

Table 6.7 presents data on the U.S. producers' total assets while table 6.8 presents their operating ROA.[10] Table 6.9 presents U.S. producers' narrative responses explaining their major asset categories and any significant changes in asset levels over time. The industry's assets decreased from 2023 to 2025.

Table 6.7 LD graphite electrodes: U.S. producers' total net assets, by firm and period

Value in 1,000 dollars

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Zeroes, no changes, null values, and undefined calculations are suppressed and shown as "—".

Table 6.8 LD graphite electrodes: U.S. producers' ROA, by firm and period

Ratio in percent

Firm	2023	2024	2025
GrafTech	***	***	***
Resonac	***	***	***
Tokai Carbon	***	***	***
All firms	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: GrafTech's ***. Zeroes, no changes, null values, and undefined calculations are suppressed and shown as "—".

[10] The operating ROA is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value on a product-specific basis.

Table 6.9 LD graphite electrodes: U.S. producers' narrative descriptions of their total net assets, by firm

Firm	Narrative on assets
GrafTech	***
Resonac	***
Tokai Carbon	***

Source: Compiled from data submitted in response to Commission questionnaires.

Capital and investment

The Commission requested U.S. producers of LD graphite electrodes to describe any actual or potential negative effects of imports of LD graphite electrodes from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table 6.10 presents the number of firms reporting an impact in each category and table 6.11 provides the U.S. producers' narrative responses.

Table 6.10 LD graphite electrodes: Count of firms indicating actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2022, by effect

Number of firms reporting

Effect	Category	Count
Cancellation, postponement, or rejection of expansion projects	Investment	***
Denial or rejection of investment proposal	Investment	***
Reduction in the size of capital investments	Investment	***
Return on specific investments negatively impacted	Investment	***
Other investment effects	Investment	***
Any negative effects on investment	Investment	***
Rejection of bank loans	Growth	***
Lowering of credit rating	Growth	***
Problem related to the issue of stocks or bonds	Growth	***
Ability to service debt	Growth	***
Other growth and development effects	Growth	***
Any negative effects on growth and development	Growth	***
Anticipated negative effects of imports	Future	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 6.11 LD graphite electrodes: U.S. producers’ narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2023, by firm and effect

Item	Firm name and narrative on impact of imports
Cancellation, postponement, or rejection of expansion projects	***
Cancellation, postponement, or rejection of expansion projects	***
Denial or rejection of investment proposal	***
Reduction in the size of capital investments	***
Reduction in the size of capital investments	***
Reduction in the size of capital investments	***
Return on specific investments negatively impacted	***
Return on specific investments negatively impacted	***
Other negative effects on investments	***
Other negative effects on investments	***
Rejection of bank loans	***
Lowering of credit rating	***
Problem related to the issue of stocks or bonds	***
Ability to service debt	***
Other effects on growth and development	***
Other effects on growth and development	***

Item	Firm name and narrative on impact of imports
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***

Source: Compiled from data submitted in response to Commission questionnaires.

Part 7: Threat considerations and information on nonsubject countries

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

> In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors[1]--
>
> (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,
>
> (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,
>
> (III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,
>
> (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,
>
> (V) inventories of the subject merchandise,

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

Information on the nature of the alleged subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in Parts 4 and 5; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in Part 6. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

[2] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

Subject countries

The Commission issued foreign producers' or exporters' questionnaires to 31 firms identified as potential producers/exporters of LD graphite electrodes from China and India.[3] Usable responses to the Commission's questionnaire were received from two firms from India. No responses to the Commission's foreign producer/exporter questionnaire were received from firms in China.

Table 7.1 presents the number of producers/exporters that responded to the Commission's questionnaire, their estimated share of total production of LD graphite electrodes, and their exports to the United States as a share of U.S. imports, by each subject country in 2025.

Table 7.1 LD graphite electrodes: Number of responding producers/exporters, approximate share of production, and exports to the United States as a share of U.S. imports, by subject foreign industry, 2025

Subject foreign industry	Number of responding firms	Approximate share of production (percent)	Exports as a share of U.S. imports from subject country (percent)
China	—	***	***
India	2	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Note: "Approximate share of production" reflects the responding firms' estimates of their production as a share of total country production of LD graphite electrodes in 2025. Since not all firms have perfect knowledge of the industry in their home market, different firms might use different denominators in estimating their firm's share of the total requested. For countries in which more than one firm responded, the average denominator for reasonably reported estimates is used in the share presented. Approximate shares are rounded to the nearest whole number.

Note: "Exports as a share of U.S. imports" reflects a comparison of export data reported by firms in response to the Commission's foreign producer/exporter questionnaire with import data reported by firms in response to the Commission's importer questionnaire. Because export data as reported in the foreign producer/exporter questionnaire modestly exceeded import data as reported in the importer questionnaire, this number exceeds 100 percent.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[3] These firms were identified through a review of information submitted in the petition and presented in third-party sources.

Table 7.2 presents information on the LD graphite electrodes operations of the responding producers in India on a firm-by-firm basis, and Table 7.3 presents information on the LD graphite electrodes operations in India.

Table 7.2 LD graphite electrodes: Summary data on responding foreign producers in India in 2025, by firm

Subject foreign industry and producer name	Production (metric tons)	Share of reported production (percent)	Exports to the United States (metric tons)	Share of reported exports to the United States (percent)	Total shipments (metric tons)	Share of firm's total shipments exported to the United States (percent)
India: HEG	***	***	***	***	***	***
India: Graphite India	***	***	***	***	***	***
All individual producers	***	100.0	***	100.0	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 7.3 LD graphite electrodes: Summary data on subject foreign industries in 2025, by source

Subject foreign industry	Production (metric tons)	Share of reported production (percent)	Exports to the United States (metric tons)	Share of reported exports to the United States (percent)	Total shipments (metric tons)	Share of firm's total shipments exported to the United States (percent)
China	***	***	***	***	***	***
India	***	***	***	***	***	***
All subject foreign industries	***	100.0	***	100.0	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 7.4 presents events in the subject countries' industries since January 1, 2023.

Table 7.4 LD graphite electrodes: Important industry events in China since 2023

Item	Event
Plant openings	East Carbon: On November 5, 2024, opened a 32,000 sq ft factory in Zhejiang China.
Plant closings	Resonac Holdings Corporation: On May 16, 2025, announced that it would stop producing graphite electrodes in China and Malaysia.
Plant opening	Rongguang Carbon: On January 23, 2025, produced first high-power electrode.
Expansion	Meshan Rongguang: In December 2025, pressed its first 700 mm graphite electrode.

Source: East Carbon, "Eastcarb Unveils New 32,000-square-meter Graphite Product Manufacturing Factory," November 5, 2024. https://www.prnewswire.com/news-releases/eastcarb-unveils-new-32-000-square-meter-graphite-product-manufacturing-factory-302295363.html; Business Standard, "Graphite electrode stocks soar as Resonac exits China and Malaysia," May 19, 2025. https://www.business-standard.com/markets/capital-market-news/graphite-electrode-stocks-soar-as-resonac-exits-china-and-malaysia-125051900642_1.html; Fluorescent Carbon, "Milestone! Meishan Rongguang successfully pressed its first 700mm graphite electrode," December 10, 2025. Petitioner, General Exhibit 14.

Table 7.4 (Continued) LD graphite electrodes: Important industry events in India since 2023

Item	Event
Expansion	HEG: August 11, 2023 announced completion of expansion from 80,000 tons per year to 100,000.
Expansions	HEG: July 2025, HEG announced that its board had approved a 6.5 billion rupee expansion for 15,000 additional tons per annum

Source: S&P Capital IQ, "Heg Limited Announces Completion of Expansion Project," August 11, 2023. https://www.marketscreener.com/quote/stock/HEG-LIMITED-9059553/news/Heg-Limited-Announces-Completion-of-Expansion-Project-Taking-Its-Capacity-from-80-000-Tons-to-100-00-45308177/; Scanx, "HEG: Tax Authority Drops ₹2.82 Billion Recovery Effort, Company Approves Capacity Expansion," July 30, 2025. https://scanx.trade/stock-market-news/corporate-actions/heg-tax-authority-drops-2-82-billion-recovery-effort-company-approves-capacity-expansion/15429191.

Changes in operations

Subject producers were asked to report any change in the character of their operations or organization relating to the production of LD graphite electrodes since 2023. Both responding producers in India indicated in their questionnaires that they had experienced such changes and one responding producer identified anticipated changes in operations. Table 7.5 presents the changes identified by these producers.

Table 7.5 LD graphite electrodes: Reported changes in operations in the subject countries since January 1, 2023, by change, subject foreign industry, and firm

Type of change	Subject foreign industry, firm name, and accompanying narrative response regarding changes in operations
Expansions	India: Graphite India: In a strategic move to capitalize on the anticipated growth in graphite electrode demand, Graphite India's Board of Directors has approved an ambitious expansion plan for its Graphite Electrodes Division. The key details of the expansion are: Proposed Capacity Addition: 25,000 TPA (Tonnes Per Annum), Total Investment: Approximately Rs 600 crore Implementation: Two phases over 36 months. Phase 1: 13,000 TPA in 12 months. Phase 2: 12,000 TPA in 36 months. Financing: Through internal resources and debt.
Expansions	***
Other	***
Anticipated changes in operations	***

Source: Compiled from data submitted in response to Commission questionnaires and Scanx, “Graphite India Reports Strong Q1 Performance and Announces Rs 600 Crore Capacity Expansion,” August 1, 2025. https://scanx.trade/stock-market-news/earnings/graphite-india-reports-strong-q1-performance-and-announces-rs-600-crore-capacity-expansion/15586149

Installed and practical overall capacity

Table 7.6 presents data on producers in India's installed capacity, practical overall capacity, and practical LD graphite electrodes capacity and production on the same equipment. Producers in India's installed, practical, and LD graphite electrode capacity increased from 2023 to 2024 then stabilized in 2024 and 2025, consistent with subject producer HEG reporting a capacity expansion in late 2023[4] and subject producer Graphite India expanding capacity at its Durgapur plant during 2023 to 2025.[5]

Table 7.6 LD graphite electrodes: Subject producers' installed and practical capacity and production on the same equipment as in-scope production, by period

Capacity and production in metric tons; utilization in percent

Item	Measure	2023	2024	2025
Installed overall	Capacity	***	***	***
Installed overall	Production	***	***	***
Installed overall	Utilization	***	***	***
Practical overall	Capacity	***	***	***
Practical overall	Production	***	***	***
Practical overall	Utilization	***	***	***
Practical LD graphite electrodes	Capacity	***	***	***
Practical LD graphite electrodes	Production	***	***	***
Practical LD graphite electrodes	Utilization	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[4] See table 7.4 for details.

[5] West Bengal Pollution Control Board, "Expansion of capacity from 52KTPA to 67KTPA", March 2022, https://www.wbpcb.gov.in/files/Fr-08-2022-08-05-32ExSum_GIL.pdf; and Government of India Ministry of Environment, Forest and Climate Change, "Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding", October 2023; https://investors.graphiteindia.com/documents/643933f4427e0EC_Granted-10.03.2023-ECLSEIAA_208624_8291U1_SIA_WB_IND2_79688_2021.pdf.

Constraints on capacity

Table 7.7 presents producers' in India's reported production and capacity constraints since January 1, 2023.

Table 7.7 LD graphite electrodes: Subject producers' reported practical overall capacity constraints since January 1, 2023, by constraint and firm

Type of constraint	Subject foreign industry, firm name, and narrative response on constraints to practical overall capacity
Production bottlenecks	***
Other constraints	***

Source: Compiled from data submitted in response to Commission questionnaires.

Operations on LD graphite electrodes

Aggregate LD graphite electrodes operations in the subject countries[6]

Table 7.8 presents information on the LD graphite electrodes operations of the responding producers/exporters in India. Producers in India's capacity increased from 2023 to 2024 then stabilized while production increased yearly, consistent with reported expansions. Capacity is projected to further increase in 2026 then stabilize in 2027, while production is projected to increase in 2026 and 2027.[7] Capacity utilization decreased from 2023 to 2024 then increased in 2025 to similar levels as reported in 2023 and is projected to decrease in 2026 then increase in 2027.

Export shipments made up a majority and increasing share of total shipments from 2023 to 2025 and are projected to further increase by quantity in 2026 and 2027 but make up a smaller share in 2027 as compared to 2026. Exports to the United States, which made up a small but increasing share across all years, are projected to decrease in 2026 then increase in 2027, but at a lower level than that reported in 2025.[8] Producers' home market shipments by quantity increased from 2023 to 2025 but as a share of total shipments fluctuated downward over the same time period. Home market shipments are projected to decrease in 2026 then increase in 2027.

[6] As noted above, the Commission did not receive any foreign producer questionnaire responses from producers in China. Petitioners estimate producers in China's capacity to be 1.1 million metric tons of LD graphite electrodes. Petition, General Exhibit 14 and Petitioner postconference brief, Exhibit 1. Subject country producers (which may include production of out of scope products) identified in these exhibits include Jialong New Materials (200 thousand tons), Fangda Carbon New Material (190), Shanxi Juxian Graphite New Material (150), Liaoning Dantan Technology Group (120), CIMM Group (100), Nantong Yangzi Carbon (100), Meishan Rongguang (75), Jianglong Carbon (60), Hebei Qiheng New Material (30), Kaifeng Carbon (22), Jinsun Carbon (20), Haihan Industry (20), Fushun Jinly Petrochemical Carbon (8), and Zhengzhou Rongsheng (5).

[7] Subject producer *** reported *** as the basis for its projections.

[8] Subject producer *** reported *** as the basis for its projections.

Table 7.8 LD graphite electrodes: Data on industry in India, by item and period

Quantity in metric tons

Item	2023	2024	2025	Projection 2026	Projection 2027
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Internal consumption	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Home market shipments	***	***	***	***	***
Exports to the United States	***	***	***	***	***
Exports to all other markets	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

Table continued.

Table 7.8 (Continued) LD graphite electrodes: Data on industry in India, by period

Ratio and share in percent

Item	2023	2024	2025	Projection 2026	Projection 2027
Capacity utilization ratio	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***
Internal consumption share	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***
Home market shipments share	***	***	***	***	***
Exports to the United States share	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***
Export shipments share	***	***	***	***	***
Total shipments share	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

LD graphite electrodes inventories, by subject foreign industry

Table 7.9 presents information on ending inventory of the responding producers in India. Producers in India's end-of-period inventories fluctuated downward from 2023 to 2025 and are projected to further decrease in 2026 and 2027.

Table 7.9 LD graphite electrodes: Producers in India's ending inventories: Ending inventories, by source and period

Quantity in metric tons

Subject foreign industry	2023	2024	2025	Projection 2026	Projection 2027
China	***	***	***	***	***
India	***	***	***	***	***
All subject foreign industries	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table 7.9 (Continued) LD graphite electrodes: Producers in India's ending inventories: Ratio of ending inventories to total shipments, by source and period

Ratio in percent

Subject foreign industry	2023	2024	2025	Projection 2026	Projection 2027
China	***	***	***	***	***
India	***	***	***	***	***
All subject foreign industries	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Alternative products

As shown in table 7.10, responding firms in India produced other products on the same equipment and machinery used to produce LD graphite electrodes. LD graphite electrodes made up a large majority of products produced from 2023 to 2025. Graphite electrodes with an outer diameter between 14 and 16.7 inches and less than 14 inches made up smaller shares. Other products produced include ***.

Table 7.10 LD graphite electrodes: Producers' in India's overall production on the same equipment as in-scope production, by product type and period

Quantity in metric tons; share in percent

Product type	Measure	2023	2024	2025
LD graphite electrodes	Quantity	***	***	***
Graphite electrodes O.D. between 14.0 to 16.7 inches	Quantity	***	***	***
Graphite electrodes O.D. less than 14.0 inches	Quantity	***	***	***
Other products	Quantity	***	***	***
Out-of-scope products	Quantity	***	***	***
All products	Quantity	***	***	***
LD graphite electrodes	Share	***	***	***
Graphite electrodes O.D. between 14.0 to 16.7 inches	Share	***	***	***
Graphite electrodes O.D. less than 14.0 inches	Share	***	***	***
Other products	Share	***	***	***
Out-of-scope products	Share	***	***	***
All products	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Exports

Table 7.11 presents Global Trade Atlas ("GTA") data for exports of electrodes of graphite or other carbon, of a kind used for furnaces, a broader category that includes LD graphite electrodes, from subject countries to the United States and to all destination markets.[9] By value, exports from China and India to the United States increased from 2023 to 2024 then decreased in 2025.

The value of exports of electrodes of graphite or other carbon, of a kind used for furnaces from China to all destination markets decreased yearly from 2023 to 2025 while the value of exports from India to all destination markets decreased from 2023 to 2024 then increased in 2025 to a lower level than reported in 2023.

Table 7.11 Electrodes of graphite or other carbon, of a kind used for furnaces: Global exports from subject foreign industries: Exports to the United States, by subject foreign country and period

Value in 1,000 dollars

Exporter	Measure	2023	2024	2025
China	Value	29,561	29,617	13,206
India	Value	53,187	58,410	48,333
Subject exporters	Value	82,747	88,027	61,539

Table continued.

Table 7.11 (Continued) Electrodes of graphite or other carbon, of a kind used for furnaces: Global exports from subject foreign industries: Exports to all destination markets, by subject foreign country and period

Value in 1,000 dollars

Exporter	Measure	2023	2024	2025
China	Value	955,115	761,352	730,523
India	Value	267,257	221,846	255,025
Subject exporters	Value	1,222,372	983,198	985,548

Table continued.

Table 7.11 (Continued) Electrodes of graphite or other carbon, of a kind used for furnaces: Global exports from subject foreign industries: Share of exports exported to the United States, by subject foreign country and period

Share in percent

Exporter	Measure	2023	2024	2025
China	Share	2.4	3.0	1.3
India	Share	4.4	5.9	4.9
Subject exporters	Share	6.8	9.0	6.2

Source: Official export statistics under HS subheadings 8545.11, as reported by various national statistical authorities in the Global Trade Atlas database, accessed March 11, 2026.

[9] Value data are presented as GTA data for this subheading present mixed units of quantity.

U.S. inventories of imported merchandise

Table 7.12 presents data on U.S. importers' reported inventories of LD graphite electrodes.[10] End-of-period inventories of imports from China increased yearly from 2023 to 2025, more than doubling from 2023 to 2024. End-of-period inventories of imports from India fluctuated downward from 2023 to 2025. The ratio of end-of-period inventories to imports from China increased yearly from 2023 to 2025, while the ratio of end-of-period inventories to imports from India decreased yearly from 2023 to 2025.

Table 7.12 LD graphite electrodes: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in metric tons; ratio in percent

Measure	Source	2023	2024	2025
Inventories quantity	China	***	***	***
Ratio to imports	China	***	***	***
Ratio to U.S. shipments of imports	China	***	***	***
Ratio to total shipments of imports	China	***	***	***
Inventories quantity	India	***	***	***
Ratio to imports	India	***	***	***
Ratio to U.S. shipments of imports	India	***	***	***
Ratio to total shipments of imports	India	***	***	***
Inventories quantity	Subject sources	***	***	***
Ratio to imports	Subject sources	***	***	***
Ratio to U.S. shipments of imports	Subject sources	***	***	***
Ratio to total shipments of imports	Subject sources	***	***	***
Inventories quantity	Nonsubject sources	***	***	***
Ratio to imports	Nonsubject sources	***	***	***
Ratio to U.S. shipments of imports	Nonsubject sources	***	***	***
Ratio to total shipments of imports	Nonsubject sources	***	***	***
Inventories quantity	All import sources	***	***	***
Ratio to imports	All import sources	***	***	***
Ratio to U.S. shipments of imports	All import sources	***	***	***
Ratio to total shipments of imports	All import sources	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[10] Data on U.S. importers' reported inventories of LD graphite electrodes from India may be understated due to ***. See part 4 for details.

U.S. importers’ outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of LD graphite electrodes from China and India after December 31, 2025. Their reported data are presented in table 7.13. *** importers reported arranged imports from China, *** importers reported arranged imports from India, and *** importers reported arranged imports from nonsubject sources. U.S. importer *** accounted for nearly all arranged imports from nonsubject sources.[11]

Table 7.13 LD graphite electrodes: U.S. importers’ arranged imports, by source and period

Quantity in metric tons

Source	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Total
China	***	***	***	***	***
India	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[11] U.S. importer *** reported that it imports ***. Petitioners’ postconference brief, Exhibit 5. See parts 3 and 4 for further details.

Third-country trade actions

There are several recent and continuing third-country trade actions related to graphite electrodes.

China

On March 12, 2026, Brazil's Secretaria de Comércio Exterior (SECEX) announced the initiation of an antidumping investigation into imports of graphite electrodes of a diameter of 14 inches or greater from China and India initiated by a complaint by Graftech.[12]

On December 17, 2025, the Eurasian Economic Council's Board approved antidumping duties ranging from 19.22 percent to 22.51 percent for certain graphite electrodes from China.[13] These duties apply to graphite electrodes of more than 520 mm, but not more than 650 mm.[14] These duties will apply to imports among Eurasian Economic Union (EAEU) member states (Armenia, Kazakhstan, Kyrgyz Republic, and Russian Federation). The petitioner was EI 6, the sole manufacturer of such graphite electrodes in the EAEU.[15]

On July 3, 2025, Japan imposed duties of 95.2 percent on graphite electrodes from China as a result of an investigation that began on April 24, 2024.[16] The investigation was in response to an application from SEC Carbon, Tokai Carbon, and Nippon Carbon.[17]

On April 7, 2022, the European Union (EU) imposed duties ranging from 23 percent to 74.9 percent on graphite electrode systems greater than 350 mm from China as a result of an

[12] SECEX, "CIRCULAR Nº 18, DE 11 DE MARÇO DE 2026," March 12, 2026. https://www.in.gov.br/en/web/dou/-/circular-n-18-de-11-de-marco-de-2026-692104646.

[13] EEC, "EEC approved anti-dumping measure against graphite electrodes from PRC," December 17, 2025. https://eec.eaeunion.org/en/news/eek-utverdila-parametry-antidempingovoy-mery-v-otnoshenii-grafitirovannykh-elektrodov-iz-knr/.

[14] WTO, "Trade Remedies Data Portal: AD-40-CN," retrieved March 19, 2026. https://trade-remedies.wto.org/en/antidumping/investigations/investigation/rus-ad-40-cn.

[15] SEAISI, "EAEU investigates graphite electrodes imports from China," March 6, 2025. https://www.seaisi.org/details/26293?type=news-rooms.

[16] Komiya, "Japan to put 95.2% duty on China graphite electrodes from Saturday," March 25, 2025. https://www.reuters.com/markets/commodities/japan-impose-tariffs-chinas-graphite-electrodes-saturday-nhk-reports-2025-03-25/.

[17] Komiya, "Japan to put 95.2% duty on China graphite electrodes from Saturday," March 25, 2025. https://www.reuters.com/markets/commodities/japan-impose-tariffs-chinas-graphite-electrodes-saturday-nhk-reports-2025-03-25/.

investigation that began on February 17, 2021.[18] This investigation was initiated following a complaint lodged by Graphite Cova, Showa Denko Carbon Holding, and Tokai Carbon.[19]

India

On January 26, 2013, the EAEU member states imposed duties of 16.04 to 32.83 percent on graphite electrodes from India as a result of an investigation that began on August 31, 2011.[20]

On September 13, 2004, the EU imposed duties of up to 16.7 percent on graphite electrodes from India with an apparent density of 1,65 g/cm3 or more and an electrical resistance of 6,0 μΩ.m or less as a result of an investigation that began in August 21, 2003 in response to a complaint from the European Carbon and Graphite Association.[21] These duties have been reviewed and renewed several times. In the first review, in December 18, 2008, the EU lowered countervailing duties to 6.3 percent for GIL and 7.0 percent for HEG.[22] Subsequent investigations maintained these duty levels.[23]

[18] EU, "EU counters dumped imports of graphite electrodes from China," April 7, 2022. https://policy.trade.ec.europa.eu/news/eu-counters-dumped-imports-graphite-electrodes-china-2022-04-07_en; EC, "Commission Implementing Regulation (EU) 2022/558," April 6, 2022. https://eur-lex.europa.eu/eli/reg_impl/2022/558/oj/eng.

[19] EU, Commission Implementing Regulation (EU) 2021/1812 of 14 October 2021 imposing a provisional anti-dumping duty on imports of certain graphite electrode systems originating in the People's Republic of China, October 14, 2021. https://eur-lex.europa.eu/eli/reg_impl/2021/1812/oj/eng.

[20] WTO, "Trade Remedies Data Portal: AD-9-IN," retrieved March 19, 2026. https://trade-remedies.wto.org/en/antidumping/investigations/investigation/rus-ad-9-in-1.

[21] EC, "Imposing a definitive countervailing duty and collecting definitively the provisional duty imposed on imports of certain graphite electrode systems originating in India," September 13, 2004. https://www.unescwa.org/sites/default/files/event/materials/graphite_electrodes_definitive_measures.pdf; EC, "Notice of Initiation," August 21, 2003. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2003:197:0005:0007:EN:PDF.

[22] EC, "Amending Regulation (EC) No 1628/2004," December 18, 2008. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:350:0024:0034:EN:PDF.

[23] EU, "Imposing a definitive countervailing duty," June 6, 2023. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R1103.

Information on nonsubject countries

Table 7.14 presents global export data for electrodes of graphite or other carbon, of a kind used for furnaces, a broader category that includes LD graphite electrodes. The largest nonsubject exporter of electrodes of graphite or other carbon, of a kind used for furnaces was Spain, with 13.6 percent of global exports in 2024, valuing $246.2 million. The next four leading nonsubject exporters were Netherlands, Japan, France, and Germany, collectively representing 22.9 percent of global exports in 2024. Electrodes of graphite or other carbon, of a kind used for furnaces from nonsubject countries combined represented 44.1 percent of total global export values in 2024.

Table 7.14 Electrodes of graphite or other carbon, of a kind used in furnaces: Global exports by exporter and period

Value in 1,000 dollars; Shares in percent

Exporting country	Measure	2022	2023	2024
United States	Value	67,788	49,346	27,931
China	Value	955,115	761,352	730,523
India	Value	267,257	221,846	255,025
Subject exporters	Value	1,222,372	983,198	985,548
Spain	Value	314,450	276,491	246,243
Netherlands	Value	204,498	140,816	141,726
Japan	Value	259,185	234,134	133,465
France	Value	151,206	118,542	88,467
Germany	Value	95,554	60,712	50,773
Slovakia	Value	14,493	44,794	36,087
Poland	Value	76,469	46,403	35,393
Ukraine	Value	12,747	11,407	12,932
All other exporters	Value	210,707	112,861	55,166
Nonsubject exporters	Value	1,339,308	1,046,160	800,250
All reporting exporters	Value	2,629,469	2,078,704	1,813,692
United States	Share	2.6	2.4	1.5
China	Share	36.3	36.6	40.3
India	Share	10.2	10.7	14.1
Subject exporters	Share	46.5	47.3	54.3
Spain	Share	12.0	13.3	13.6
Netherlands	Share	7.8	6.8	7.8
Japan	Share	9.9	11.3	7.4
France	Share	5.8	5.7	4.9
Germany	Share	3.6	2.9	2.8
Slovakia	Share	0.6	2.2	2.0
Poland	Share	2.9	2.2	2.0
Ukraine	Share	0.5	0.5	0.7
All other exporters	Share	8.0	5.4	3.0
Nonsubject exporters	Share	50.9	50.3	44.1
All reporting exporters	Share	100.0	100.0	100.0

Source: Official export statistics under HS subheading 8545.11, as reported by various national statistical authorities in the Global Trade Atlas database, accessed March 10, 2026.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, Federal Register notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
91 FR 9885, February 27, 2026	Large Diameter Graphite Electrodes from China and India; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations	https://www.govinfo.gov/content/pkg/FR-2026-02-27/pdf/2026-03954.pdf
91 FR 13577, March 20, 2026	Large Diameter Graphite Electrodes from the People's Republic of China and India: Initiation of Countervailing Duty Investigations	https://www.govinfo.gov/content/pkg/FR-2026-03-20/pdf/2026-05496.pdf
91 FR 13581, March 20, 2026	Large Diameter Graphite Electrodes from the People's Republic of China and India: Initiation of Less-Than-Fair-Value Investigations	https://www.govinfo.gov/content/pkg/FR-2026-03-20/pdf/2026-05495.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's preliminary conference:

Subject:	Large Diameter Graphite Electrodes from China and India
Inv. Nos.:	701-TA-787-788 and 731-TA-1775-1776 (Preliminary)
Date and Time:	March 17, 2026 – 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, D.C.

OPENING REMARKS:

In Support of Imposition (**Brooke M. Ringel**, Kelley Drye & Warren LLP)

In Support of the Imposition of the
Antidumping and Countervailing Duty Orders:

Kelley Drye & Warren LLP
Washington, D.C.
on behalf of

Resonac Graphite America Inc.
Tokai Carbon GE LLC

Daniel Duenas, President and Chief Executive Officer of Americas, Resonac Graphite America Business

James Gehrman, Executive Partner, Resonac Graphite America Inc.

Jay McCloy, Vice President – Sales, Marketing, and Technical Service, Tokai Carbon GE LLC

Nereus A. Joubert, Senior Trade Analyst, Georgetown Economic Services LLC

Michael T. Kerwin, Assistant Director, Georgetown Economic Services LLC

Brooke M. Ringel)
R. Alan Luberda) – OF COUNSEL
Matthew T. Martin)

INTERESTED PARTY IN OPPOSITION:

UKCG Group Limited
United Kingdom

Benjamin Keith McGhee (remote witness), Chief Executive Officer

John James McAuliffe (remote witness), Technical Sales Director

CLOSING REMARKS:

In Support of Imposition (**R. Alan Luberda** and **Brooke M. Ringel**, Kelley Drye & Warren LLP)

APPENDIX C

SUMMARY DATA

Table C.1

LD graphite electrodes: Summary data concerning the U.S. market, by item and period

Quantity=metric tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per metric ton; Period changes=percent--exceptions noted

Item	Reported data			Period change comparisons		
	Calendar year			Calendar year		
	2023	2024	2025	2023–25	2023–24	2024–25
U.S. consumption quantity:						
Amount	***	***	***	▼***	▼***	▼***
Producers' share (fn1):						
Unadjusted U.S. shipments:	***	***	***	▼***	▲***	▼***
Imported pinning systems (fn2)	***	***	***	▼***	▼***	▼***
Adjusted U.S. shipments (fn2)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▼***	▼***	▼***
India	***	***	***	▲***	▲***	▲***
Subject sources	***	***	***	▲***	▲***	▲***
Nonsubject sources	***	***	***	▲***	▼***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value:						
Amount	***	***	***	▼***	▼***	▼***
Producers' share (fn1):						
Unadjusted U.S. shipments:	***	***	***	▼***	▲***	▼***
Imported pinning systems (fn2)	***	***	***	▼***	▼***	▼***
Adjusted U.S. shipments (fn2)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▼***	▼***	▲***
India	***	***	***	▲***	▲***	▲***
Subject sources	***	***	***	▲***	▲***	▲***
Nonsubject sources	***	***	***	▲***	▼***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports from:						
China:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
India:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▼***	▲***	▼***
Subject sources:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▼***

Table continued.

Table C.1 Continued
LD graphite electrodes: Summary data concerning the U.S. market, by item and period

Quantity=metric tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per metric ton; Period changes=percent--exceptions noted

Item	Reported data Calendar year 2023	2024	2025	Period change comparisons Calendar year 2023–25	2023–24	2024–25
U.S. importers' U.S. shipments of imports from: Continued						
Nonsubject sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▼***	▼***	▲***
All import sources:						
Quantity	41,041	36,728	49,665	▲21.0	▼(10.5)	▲35.2
Value	289,174	218,587	250,777	▼(13.3)	▼(24.4)	▲14.7
Unit value	$7,046	$5,952	$5,049	▼(28.3)	▼(15.5)	▼(15.2)
Ending inventory quantity	***	***	***	▲***	▼***	▲***
U.S. producers':						
Practical capacity quantity	***	***	***	▼***	▼***	▼***
Production quantity	***	***	***	▼***	▼***	▼***
Capacity utilization (fn1)	***	***	***	▼***	▼***	▼***
U.S. shipments:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▼***	▼***	▼***
U.S. imports of pinning systems (fn2):						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Adjusted U.S. shipments (fn2):						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▼***	▼***	▼***
Export shipments:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▼***	▼***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▼***
Inventories/total shipments (fn1)	***	***	***	▼***	▼***	▼***
Production workers	***	***	***	▼***	▼***	▼***
Hours worked (1,000s)	***	***	***	▼***	▼***	▼***
Wages paid ($1,000)	***	***	***	▼***	▲***	▼***
Hourly wages (dollars per hour)	***	***	***	▲***	▲***	▲***
Productivity (metric tons per 1,000 hours)	***	***	***	▼***	▼***	▼***
Unit labor costs	***	***	***	▲***	▲***	▲***

Table continued.

Table C.1 Continued

LD graphite electrodes: Summary data concerning the U.S. market, by item and period

Quantity=metric tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per metric ton; Period changes=percent--exceptions noted

Item	Reported data			Period change comparisons		
	Calendar year			Calendar year		
	2023	2024	2025	2023–25	2023–24	2024–25
Net sales:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▼***	▼***	▼***
Cost of goods sold (COGS)	***	***	***	▼***	▼***	▼***
Gross profit or (loss) (fn3)	***	***	***	▼***	▼***	▼***
SG&A expenses	***	***	***	▼***	▼***	▼***
Operating income or (loss) (fn3)	***	***	***	▼***	▼***	▼***
Net income or (loss) (fn3)	***	***	***	▼***	▼***	▼***
Unit COGS	***	***	***	▼***	▼***	▼***
Unit SG&A expenses	***	***	***	▼***	▼***	▼***
Unit operating income or (loss) (fn3)	***	***	***	▼***	▼***	▼***
Unit net income or (loss) (fn3)	***	***	***	▼***	▼***	▼***
COGS/sales (fn1)	***	***	***	▲***	▲***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***
Net income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***
Capital expenditures	***	***	***	▼***	▼***	▲***
Research and development expenses	***	***	***	▲***	***	▲***
Total assets	***	***	***	▼***	▼***	▼***

Source: Compiled from data submitted in response to Commission questionnaires. 508-compliant tables for these data are contained in parts 3, 4, 6, and 7 of this report.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--U.S. producers' internally consume imports of pinning systems into the completed LD graphite electrodes they ship. The imported pinning systems are already included once as imported merchandise and have been removed from the U.S. producers' U.S. shipments data to present adjusted U.S. producers' U.S. shipments for use in apparent consumption.
fn3.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "—". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

APPENDIX D

OFFICIAL IMPORT STATISTICS

Table D.1 LD graphite electrodes: U.S. imports by source and period

Quantity in metric tons; Value in 1,000 dollars; Unit values in dollars per metric ton; Shares in percent

Source	Measure	2023	2024	2025
China	Quantity	4,950	5,947	3,732
India	Quantity	2,082	2,294	792
Subject sources	Quantity	7,032	8,241	4,524
Nonsubject sources	Quantity	23,949	17,679	17,845
All import sources	Quantity	30,980	25,920	22,369
China	Value	20,529	18,002	11,076
India	Value	4,604	5,117	2,560
Subject sources	Value	25,134	23,119	13,636
Nonsubject sources	Value	127,193	85,125	84,535
All import sources	Value	152,327	108,244	98,171
China	Unit value	4,147	3,027	2,968
India	Unit value	2,212	2,231	3,234
Subject sources	Unit value	3,574	2,805	3,014
Nonsubject sources	Unit value	5,311	4,815	4,737
All import sources	Unit value	4,917	4,176	4,389
China	Share of quantity	16.0	22.9	16.7
India	Share of quantity	6.7	8.8	3.5
Subject sources	Share of quantity	22.7	31.8	20.2
Nonsubject sources	Share of quantity	77.3	68.2	79.8
All import sources	Share of quantity	100.0	100.0	100.0
China	Share of value	13.5	16.6	11.3
India	Share of value	3.0	4.7	2.6
Subject sources	Share of value	16.5	21.4	13.9
Nonsubject sources	Share of value	83.5	78.6	86.1
All import sources	Share of value	100.0	100.0	100.0

Source: Compiled from official U.S. imports statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 8545.11.0020, accessed January 24, 2024. Data are based on the imports for consumption data series, and value data reflect landed, duty-paid values.

APPENDIX E

U.S. PRODUCERS' AND U.S. IMPORTERS' U.S. SHIPMENTS BY OUTER DIAMETER

Table E.1 LD graphite electrodes: U.S. producers' U.S. shipments of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Table E.2 LD graphite electrodes: U.S. importers' U.S. shipments of imports from China of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Table E.3 LD graphite electrodes: U.S. importers' U.S. shipments of imports from India of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Table E.4 LD graphite electrodes: U.S. importers' U.S. shipments of imports from all subject sources of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Table E.5 LD graphite electrodes: U.S. importers' U.S. shipments of imports from nonsubject sources of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.

Table E.6 LD graphite electrodes: U.S. importers' U.S. shipments of imports from all import sources of finished LD graphite electrodes, by outer diameter

Quantity in metric tons; Shares in percent

Outer diameter	Measure	2023	2024	2025
Less than 24 inches	Quantity	***	***	***
Between 24 and 28 inches	Quantity	***	***	***
Greater than 28 inches	Quantity	***	***	***
All outer diameters	Quantity	***	***	***
Less than 24 inches	Share	***	***	***
Between 24 and 28 inches	Share	***	***	***
Greater than 28 inches	Share	***	***	***
All outer diameters	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "—". Outer diameter between 24 and 28 inches are inclusive of the stated lower and upper outer diameter ranges.