

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

LG ENERGY SOLUTION LTD.,

Plaintiff,

v.

EVE ENERGY CO., LTD., ROBERT BOSCH
GMBH, KOKI HOLDINGS CO., LTD.,
CHERVON (CHINA) TRADING CO., LTD.,
AND NANJING CHERVON INDUSTRY CO.,
LTD.

Defendants.

Civil Action No. 2:26-cv-00598

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiff LG Energy Solution Ltd. (“LGES” or “Plaintiff”) makes the following allegations against Defendants EVE Energy Co., Ltd., (“EVE”), Robert Bosch GmbH (“Bosch”), Koki Holdings Co., Ltd., (“Koki”), Chervon (China) Trading Co., Ltd., and Nanjing Chervon Industry Co., Ltd. (collectively, “Chervon”) (collectively, “Defendants”) for infringing certain LGES patents related to secondary cylindrical batteries.

PARTIES

1. LG Energy Solution, Ltd. is a corporation organized and existing under the laws of the Republic of Korea, with its principal place of business at Parc. 1 Tower, 108, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea 07355.

2. On information and belief, EVE Energy Co., Ltd. is a limited liability company organized and existing under the laws of the People's Republic of China. It has a principal place of business located at No. 38, Huifeng 7th Road, Zhongkai Hi-Tech Zone, Huizhou, Guangdong, China. EVE Energy Co., Ltd. engages in business in Texas. Pursuant to § 17.044 of the Texas Civil Practice & Remedies Code, EVE Energy Co., Ltd. has designated the Secretary of State as its agent for service of process and may be served with process through the Secretary of State. The Secretary of State may forward service to EVE Energy Co., Ltd. at its home office address located at No. 38, Huifeng 7th Road, Zhongkai Hi-Tech Zone, Huizhou, Guangdong, China.

3. On information and belief, Robert Bosch GmbH is a company organized under the laws of Germany. It has a principal place of business located at Robert-Bosch-Platz 1, 70839 Gerlingen-Schillerhöhe, Germany. Robert Bosch GmbH engages in business in Texas. Pursuant to § 17.044 of the Texas Civil Practice & Remedies Code, Robert Bosch GmbH has designated the Secretary of State as its agent for service of process and may be served with process through the Secretary of State. The Secretary of State may forward service to Robert Bosch GmbH at its home office address located at Robert-Bosch-Platz 170839 Gerlingen-Schillerhöhe, Germany.

4. On information and belief, Koki Holdings Co., Ltd. is a limited liability company organized under the laws of Japan. It has a principal place of business located at Shinagawa Intercity Tower A, 20th Floor 15-1, Konan 2-chome, Minato-ku, Tokyo 108-6020, Japan. Koki Holdings Co., Ltd. engages in business in Texas. Pursuant to § 17.044 of the Texas Civil Practice & Remedies Code, Koki Holdings Co., Ltd. has designated the Secretary of State as its agent for service of process and may be served with process through the Secretary of State. The Secretary of State may forward service to Koki Holdings Co., Ltd. at its home office address located at

Shinagawa Intercity Tower A, 20th Floor 15-1, Konan 2-chome, Minato-ku, Tokyo 108-6020, Japan.

5. On information and belief, Chervon (China) Trading Co., Ltd. is a company organized under the laws of the People's Republic of China. It has a principal place of business located at No. 99 Tianyuan West Road, Jiangning Economic and Technical Development Zone, Nanjing, Jiangsu Province, China. Chervon (China) Trading Co., Ltd. engages in business in Texas. Pursuant to § 17.044 of the Texas Civil Practice & Remedies Code, Chervon (China) Trading Co., Ltd. has designated the Secretary of State as its agent for service of process and may be served with process through the Secretary of State. The Secretary of State may forward service to Chervon (China) Trading Co., Ltd. at its home office address located at No. 99 Tianyuan West Road, Jiangning Economic and Technical Development Zone, Nanjing, Jiangsu Province, China.

6. On information and belief, Nanjing Chervon Industry Co., Ltd. is a company organized under the laws of the People's Republic of China. It has a principal place of business located at No. 529 and 159, Jiangjun Avenue, Jiangning District, Nanjing (Jiangning Development Zone), Nanjing, Jiangsu, 211111, China. Nanjing Chervon Industry Co., Ltd. engages in business in Texas. Pursuant to § 17.044 of the Texas Civil Practice & Remedies Code, Nanjing Chervon Industry Co., Ltd. has designated the Secretary of State as its agent for service of process and may be served with process through the Secretary of State. The Secretary of State may forward service to Nanjing Chervon Industry Co., Ltd. at its home office address located at No. 529 and 159, Jiangjun Avenue, Jiangning District, Nanjing (Jiangning Development Zone), Nanjing, Jiangsu, 211111, China.

JURISDICTION AND VENUE

7. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*

8. EVE Energy Co., Ltd. is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) infringing secondary cylindrical battery products in the United States, Texas, and this District.

9. EVE Energy Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents induced its direct and indirect customers to commit acts of infringement in the United States, Texas, and this District.

10. EVE Energy Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents contributed to its direct and indirect customers' acts of infringement in the United States, Texas, and this District.

11. EVE Energy Co., Ltd. directly, through its subsidiaries and agents, and through its direct and indirect customers has purposefully and voluntarily placed infringing secondary cylindrical battery products in the stream of commerce knowing, expecting, and intending them to be sold in and purchased and used by consumers in the United States, Texas, and this District.

12. On information and belief, EVE Energy Co., Ltd.'s customers make, import, ship, distribute, offer for sale, sell, use and advertise (including offering products and services through websites) EVE Energy Co., Ltd.'s infringing secondary cylindrical battery products (or products incorporating its infringing secondary cylindrical battery products) in the United States, Texas, and this District.

13. Further, on information and belief, this Court has personal jurisdiction over EVE Energy Co., Ltd. at least by virtue of Federal Rule of Civil Procedure 4(k)(2).

14. Robert Bosch GmbH is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) products incorporating infringing secondary cylindrical battery products in the United States, Texas, and this District.

15. Robert Bosch GmbH is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents induced its direct and indirect customers to commit acts of infringement in the United States, Texas, and this District.

16. Robert Bosch GmbH is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents contributed to its direct and indirect customers' acts of infringement in the United States, Texas, and this District.

17. Robert Bosch GmbH directly, through its subsidiaries and agents, and through its direct and indirect customers has purposefully and voluntarily placed infringing secondary cylindrical battery products in the stream of commerce knowing, expecting, and intending them to be sold in and purchased and used by consumers in the United States, Texas, and this District.

18. On information and belief, Robert Bosch GmbH's customers make, import, ship, distribute, offer for sale, sell, use, and advertise (including offering products and services through websites) Robert Bosch GmbH's products incorporating the infringing secondary cylindrical battery products in the United States, Texas, and this District.

19. Further, on information and belief, this Court has personal jurisdiction over Robert Bosch GmbH at least by virtue of Federal Rule of Civil Procedure 4(k)(2).

20. Koki Holdings Co., Ltd. is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) products incorporating infringing secondary cylindrical battery products in the United States, Texas, and this District.

21. Koki Holdings Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents induced its direct and indirect customers to commit acts of infringement in the United States, Texas, and this District.

22. Koki Holdings Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents contributed to its direct and indirect customers' acts of infringement in the United States, Texas, and this District.

23. Koki Holdings Co., Ltd. directly, through its subsidiaries and agents, and through its direct and indirect customers has purposefully and voluntarily placed infringing secondary cylindrical battery products in the stream of commerce knowing, expecting, and intending them to be sold in and purchased and used by consumers in the United States, Texas, and this District.

24. On information and belief, Koki Holdings Co., Ltd.'s customers make, import, ship, distribute, offer for sale, sell, use, and advertise (including offering products and services through websites) Koki Holdings Co., Ltd.'s products incorporating the infringing secondary cylindrical battery products in the United States, Texas, and this District.

25. Further, on information and belief, this Court has personal jurisdiction over Koki Holdings Co., Ltd. at least by virtue of Federal Rule of Civil Procedure 4(k)(2).

26. Chervon (China) Trading Co., Ltd. is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) products incorporating infringing secondary cylindrical battery products in the United States, Texas, and this District.

27. Chervon (China) Trading Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents induced its direct and indirect customers to commit acts of infringement in the United States, Texas, and this District.

28. Chervon (China) Trading Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents contributed to its direct and indirect customers' acts of infringement in the United States, Texas, and this District.

29. Chervon (China) Trading Co., Ltd. directly, through its subsidiaries and agents, and through its direct and indirect customers has purposefully and voluntarily placed infringing secondary cylindrical battery products in the stream of commerce knowing, expecting, and intending them to be sold in and purchased and used by consumers in the United States, Texas, and this District.

30. On information and belief, Chervon (China) Trading Co., Ltd.'s customers make, import, ship, distribute, offer for sale, sell, use, and advertise (including offering products and

services through websites) Chervon (China) Trading Co., Ltd.'s products incorporating the infringing secondary cylindrical battery products in the United States, Texas, and this District.

31. Further, on information and belief, this Court has personal jurisdiction over Chervon (China) Trading Co., Ltd. at least by virtue of Federal Rule of Civil Procedure 4(k)(2).

32. Nanjing Chervon Industry Co., Ltd. is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) products incorporating infringing secondary cylindrical battery products in the United States, Texas, and this District.

33. Nanjing Chervon Industry Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents induced its direct and indirect customers to commit acts of infringement in the United States, Texas, and this District.

34. Nanjing Chervon Industry Co., Ltd. is further subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it directly and/or through its subsidiaries and agents contributed to its direct and indirect customers' acts of infringement in the United States, Texas, and this District.

35. Nanjing Chervon Industry Co., Ltd. directly, through its subsidiaries and agents, and through its direct and indirect customers has purposefully and voluntarily placed infringing secondary cylindrical battery products in the stream of commerce knowing, expecting, and intending them to be sold in and purchased and used by consumers in the United States, Texas, and this District.

36. On information and belief, Nanjing Chervon Industry Co., Ltd.'s customers make, import, ship, distribute, offer for sale, sell, use, and advertise (including offering products and services through websites) Nanjing Chervon Industry Co., Ltd.'s products incorporating the infringing secondary cylindrical battery products in the United States, Texas, and this District.

37. Further, on information and belief, this Court has personal jurisdiction over Nanjing Chervon Industry Co., Ltd. at least by virtue of Federal Rule of Civil Procedure 4(k)(2).

38. Venue is proper against EVE Energy Co., Ltd. in this District pursuant to 28 U.S.C. § 1391(c)(3) and 28 U.S.C. § 1400(b). EVE Energy Co., Ltd. is not a resident of the United States and may be sued in any district, including this District.

39. Venue is proper against Robert Bosch GmbH in this District pursuant to 28 U.S.C. § 1391(c)(3) and 28 U.S.C. § 1400(b). Robert Bosch GmbH is not a resident of the United States and may be sued in any district, including this District.

40. Venue is proper against Koki Holdings Co., Ltd. in this District pursuant to 28 U.S.C. § 1391(c)(3) and 28 U.S.C. § 1400(b). Koki Holdings Co., Ltd. is not a resident of the United States and may be sued in any district, including this District.

41. Venue is proper against Chervon (China) Trading Co., Ltd. in this District pursuant to 28 U.S.C. § 1391(c)(3) and 28 U.S.C. § 1400(b). Chervon (China) Trading Co., Ltd. is not a resident of the United States and may be sued in any district, including this District.

42. Venue is proper against Nanjing Chervon Industry Co., Ltd. in this District pursuant to 28 U.S.C. § 1391(c)(3) and 28 U.S.C. § 1400(b). Nanjing Chervon Industry Co., Ltd. is not a resident of the United States and may be sued in any district, including this District.

THE PATENTS

43. This complaint asserts causes of action for infringement of United States Patent No. 8,420,257 ("the '257 Patent"), United States Patent No. 11,749,866 ("the '866 Patent"), United

States Patent No. 12,412,924 (“the ’924 Patent”), United States Patent No. 12,412,965 (“the ’965 Patent”), and United States Patent No. 12,646,735 (“the ’735 Patent”) (collectively, the “Asserted Patents”).

44. Each of the Asserted Patents claims patent-eligible subject matter and is a valid and enforceable U.S. patent, the entire right, title, and interest to which LGES owns by assignment.

U.S. Patent No. 8,420,257

45. U.S. Patent No. 8,420,257 is entitled “Cap Assembly Comprising Gasket Prevented from Sagging,” and was issued by the U.S. Patent and Trademark Office (the “PTO”) on April 16, 2013. The ’257 Patent names Sung Jong Kim, Je Jun Lee, and Cha Hun Ku as inventors. LGES holds by assignment all rights and title to the ’257 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the ’257 Patent is attached to this Complaint as Exhibit 1.

46. The ’257 Patent was originally assigned to LG Chem, Ltd. and was assigned to LGES on October 27, 2021.

47. The ’257 Patent generally claims a cap assembly for a secondary cylindrical battery, including an auxiliary gasket surrounding the outer circumference of a current interrupt device that structurally supports the main gasket to prevent it from sagging away from the safety vent.

48. To the extent applicable, LGES has complied with 35 U.S.C. § 287(a) with respect to the ’257 Patent.

49. Defendants are not licensed to practice the ’257 Patent in either an express or implied manner, nor do they enjoy or benefit from any rights in or to the ’257 Patent whatsoever.

U.S. Patent No. 11,749,866

50. U.S. Patent No. 11,749,866 is entitled “Secondary Battery,” and was issued by the PTO on September 5, 2023. The ’866 Patent names Geon Woo Min, Je Jun Lee, and Sang Suk

Jung as inventors. LGES holds by assignment all rights and title to the '866 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the '866 Patent is attached to this Complaint as Exhibit 2.

51. The '866 Patent generally claims a secondary battery with a safety vent structure inside a battery cap, in which the safety vent part includes both a rupture notch portion, designed to rupture at a predetermined pressure to vent gas, and a bending notch portion positioned concentrically inward from the rupture notch portion, which bends rather than ruptures as internal pressure increases, maintaining sufficient clearance between the safety vent and the top cap.

52. To the extent applicable, LGES has complied with 35 U.S.C. § 287(a) with respect to the '866 Patent.

53. Defendants are not licensed to practice the '866 Patent in either an express or implied manner, nor do they enjoy or benefit from any rights in or to the '866 Patent whatsoever.

U.S. Patent No. 12,412,924

54. U.S. Patent No. 12,412,924 is entitled "Multilayer Nanoporous Separator," and was issued by the PTO on September 9, 2025. The '924 Patent names David W. Avison, Steven A. Carlson, and Benjamin Sloan as inventors. LGES holds by assignment all rights and title to the '924 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the '924 Patent is attached to this Complaint as Exhibit 3.

55. The '924 Patent generally claims a multilayer separator for a lithium battery comprising a porous polymeric layer coated on one or both sides with an inorganic oxide/polymer composite layer having a low coating weight and thickness, which produces a heat-stable, highly porous coating that maintains dimensional stability at elevated temperatures, including above the melting point of the underlying polymer film.

56. To the extent applicable, LGES has complied with 35 U.S.C. § 287(a) with respect to the '924 Patent.

57. Defendants are not licensed to practice the '924 Patent in either an express or implied manner, nor do they enjoy or benefit from any rights in or to the '924 Patent whatsoever.

U.S. Patent No. 12,412,965

58. U.S. Patent No. 12,412,965 is entitled "Cylindrical Battery, Battery Pack and Vehicle," and was issued by the PTO on September 9, 2025. The '965 Patent names Yong-hwan Kwon, Dong-Wook Kim, Ji-Young Park, Ju-Nam Son, and Seo-Hyeon Chae as inventors. LGES holds by assignment all rights and title to the '965 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the '965 Patent is attached to this Complaint as Exhibit 4.

59. The '965 Patent generally claims a cylindrical battery in which the positive and negative electrodes are rolled into a cylindrical form to provide an electrode assembly, with the winding end positions of the electrodes specifically arranged in the circumferential direction of the electrode assembly cross-section to counteract rotational stress caused by repeated charge and discharge cycles, thereby helping to prevent core collapse and reduce internal short circuits.

60. To the extent applicable, LGES has complied with 35 U.S.C. § 287(a) with respect to the '965 Patent.

61. Defendants are not licensed to practice the '965 Patent in either an express or implied manner, nor do they enjoy or benefit from any rights in or to the '965 Patent whatsoever.

U.S. Patent No. 12,646,735

62. U.S. Patent No. 12,646,735 is entitled "Secondary Battery and Method for Manufacturing the Same," and was issued by the PTO on June 2, 2026. The '735 Patent names Jae Woong Kim, Hyoung Kwon Kim, and Sang Uck Kim as inventors. LGES holds by assignment

all rights and title to the '735 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the '735 Patent is attached to this Complaint as Exhibit 5.

63. The '735 Patent generally claims a secondary battery with a notching tab part extending from the electrode collector — without active material coating — wound to form two or more overlapping layers that are cut to create a plurality of notching tabs, which are bent and welded to the battery to provide a multi-tab current collection structure, reducing resistance and improving mechanical strength and battery safety.

64. To the extent applicable, LGES has complied with 35 U.S.C. § 287(a) with respect to the '735 Patent.

65. Defendants are not licensed to practice the '735 Patent in either an express or implied manner, nor do they enjoy or benefit from any rights in or to the '735 Patent whatsoever.

DEFENDANTS' USE OF LGES' PATENTED TECHNOLOGY

66. On information and belief, EVE manufactures secondary cylindrical battery cells, including cells in the 18650, 21700, and next-generation tabless formats, at manufacturing facilities in China. The battery cells EVE manufactures are, in turn, incorporated by EVE's customers into third-party power tool components and products.

67. For example, on information and belief, EVE has manufactured and continues to manufacture the EVE 20P, 29V, 40PL, 50PL, and 50E secondary cylindrical battery cells (collectively, "EVE Battery Cells"). EVE has publicly touted the design of certain EVE Battery Cells. For example, EVE's website states that its 40PL cell uses a tabless structure that reduces impedance and increases power compared to traditional multi-tab cell designs, allowing it to replace multi-tab battery packs in professional and industrial tool applications. EVE's website similarly describes its 50PL cell as a tabless cell that "expand[s] the comprehensive cylindrical battery solution" and reflects "profound technology accumulation and service capabilities."

68. On information and belief, Bosch, Koki, and Chervon manufacture products, such as power tools, incorporating EVE Battery Cells. The EVE Battery Cells contained within these power tools bear the “EVE” manufacturer name on the cells themselves.

69. Hereafter, the term “Accused Products” refers to all EVE Battery Cells and products containing the same that practice one or more claims of the ’257 Patent, ’866 Patent, ’924 Patent, ’965 Patent, and/or ’735 Patent.

COUNT ONE
INFRINGEMENT OF U.S. PATENT NO. 8,420,257

70. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

71. Defendants have directly infringed and continue to directly infringe the ’257 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States the Accused Products (or the products incorporating the Accused Products), including at least Claims 1 and 4. By way of example, such Accused Products include the EVE 20P, 29V, and 50E secondary cylindrical battery cells.

72. Claim 1 is illustrative of the claims of the ’257 Patent. It recites “[a] cap assembly comprising

a main gasket surrounding the outer circumference of a safety vent and

an auxiliary gasket surrounding the outer circumference of a current interrupt device (CID)

wherein a portion of the main gasket is seated on the CID and

is supported upwardly by the auxiliary gasket to minimize the amount the main gasket sags away from the safety vent.”

73. Claim 4 is further illustrative of the claims of the ’257 Patent. It recites “[a] cap assembly comprising

a main gasket surrounding the outer circumference of a safety vent and
an auxiliary gasket surrounding the outer circumference of a current interrupt device (CID)
wherein the CID is press-fittedly mounted to the main gasket and
is in direct contact with the auxiliary gasket to allow the auxiliary gasket to laterally support
the main gasket.”

74. Claim charts on information and belief comparing Claims 1 and 4 of the '257 Patent to representative Accused Products (the EVE 20P and EVE 29V) are attached as Exhibits 6 and 7, respectively. A claim chart comparing Claim 1 of the '257 Patent to a representative Accused Product (the EVE 50E) is attached as Exhibit 8.¹

75. In addition to directly infringing the '257 Patent by making, using, selling, offering to sell, and/or importing Accused Products into the United States, Defendants likewise have induced infringement of the '257 Patent under 35 U.S.C. § 271(b). Defendants have actively encouraged their customers and/or subsidiaries to directly infringe the '257 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused Products. Defendants actively encouraged their customers and/or subsidiaries to employ Defendants' infringing products by and through Defendants' sales, engineering, and technical marketing efforts and staff. In doing so, Defendants' sales engineers and technical marketing staff tout the technological and economic benefits of the accused products and actively encourage use of the accused products. Defendants have known that their customers' and/or subsidiaries' acts constituted direct infringement of at least one claim of the '257 Patent since at least as of the filing of this Complaint. As a result of Defendants' active encouragement and intentional inducement, their customers and/or subsidiaries have committed acts directly infringing the '257 Patent.

¹ These descriptions of infringement are illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Accused Products infringe.

76. Moreover, Defendants intend to cause, and have taken affirmative steps to induce, infringement by customers, subsidiaries, and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused Products. As discussed above, Defendants took direct steps to encourage, promote, instruct, and/or direct their customers, subsidiaries, and end-users' use of the Accused Products.

77. As detailed above, the Accused Products infringe the '257 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Accused Products, Defendants are actively inducing infringement of the '257 Patent in violation of 35 U.S.C. § 271(b). Defendants likewise are liable as a contributory infringer of the '257 Patent under 35 U.S.C. § 271(c). Defendants have offered to sell and/or sold within the United States the Accused Products that practice the '257 Patent. The Accused Products comprise cylindrical battery cells, each of which constitutes a material part of the '257 Patent's invention that can be incorporated into consumer products.

78. For example, such secondary cylindrical batteries or products containing the same were offered for sale, sold, and marketed by and through Defendants' sales, engineering, and technical marketing efforts and staff. Defendants have known such Accused Products to be especially adapted for practicing, and thus infringing, the '257 Patent since at least the filing of this Complaint. The Accused Products are not staple articles nor a commodity of commerce suitable for substantial non-infringing use because they cannot be used individually without incorporation into electronic components and products. Thus, Defendants are liable as a contributory infringer.

79. Defendants' continued infringement, despite their knowledge of the '257 Patent and infringement thereof, is intentional and deliberate and willful.

80. Defendants' direct, induced, contributory, and willful infringement of the '257 Patent has caused, and will continue to cause, substantial damage to LGES. Therefore, LGES is entitled to an award of damages adequate to compensate for Defendants' infringement, but not less than a reasonable royalty, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT TWO
INFRINGEMENT OF U.S. PATENT NO. 11,749,866

81. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

82. Defendants have directly infringed and continue to directly infringe the '866 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States the Accused Products (or the products incorporating the Accused Products), including at least Claim 1. By way of example, such Accused Products include the EVE 50E secondary cylindrical battery cells.

83. Claim 1 is illustrative of the claims of the '866 Patent. It recites "[a] secondary battery comprising

an electrode assembly;

a can member configured to accommodate the electrode assembly therein; and

a top cap assembly configured to cover an opening of the can member,

wherein the top cap assembly comprises a top cap positioned at an uppermost portion and a safety vent part positioned below the top cap,

wherein the safety vent part comprises:

a rupture portion configured to be ruptured when an internal pressure within the can member exceeds a predetermined pressure, the rupture portion including a first section and a second section;

a rupture notch portion that defines a boundary of the rupture portion; and

a bending notch portion which is disposed at a position spaced apart from the rupture notch portion toward a center of the rupture portion on a bottom surface of the rupture portion facing an inside of the can member, the bending notch portion separating the first section and the second section,

wherein the bending notch portion is bent when the internal pressure within the can member increases such that the first section is moved at least partially above the bending notch portion when the internal pressure is equal to the predetermined pressure.”

84. A claim chart on information and belief comparing Claim 1 of the ’866 Patent to a representative Accused Product (the EVE 50E) is attached as Exhibit 9.²

85. In addition to directly infringing the ’866 Patent by making, using, selling, offering to sell, and/or importing Accused Products into the United States, Defendants likewise have induced infringement of the ’866 Patent under 35 U.S.C. § 271(b). Defendants have actively encouraged their customers and/or subsidiaries to directly infringe the ’866 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused Products. Defendants actively encouraged their customers and/or subsidiaries to employ Defendants’ infringing products by and through Defendants’ sales, engineering, and technical marketing efforts and staff. In doing so, Defendants’ sales engineers and technical marketing staff tout the technological and economic benefits of the accused products and actively encourage use of the accused products. Defendants have known that their customers’ and/or subsidiaries’ acts constituted direct infringement of at least one claim of the ’866 Patent since at least as of the filing of this Complaint. As a result of Defendants’ active encouragement and intentional inducement, their customers and/or subsidiaries have committed acts directly infringing the ’866 Patent.

86. Moreover, Defendants intend to cause, and have taken affirmative steps to induce, infringement by customers, subsidiaries, and end-users by at least, *inter alia*, encouraging,

² This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Accused Products infringe.

promoting, instructing, and/or directing the infringing use of the Accused Products. As discussed above, Defendants took direct steps to encourage, promote, instruct, and/or direct their customers, subsidiaries, and end-users' use of the Accused Products.

87. As detailed above, the Accused Products infringe the '866 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Accused Products, Defendants are actively inducing infringement of the '866 Patent in violation of 35 U.S.C. § 271(b). Defendants likewise are liable as a contributory infringer of the '866 Patent under 35 U.S.C. § 271(c). Defendants have offered to sell and/or sold within the United States the Accused Products that practice the '866 Patent. The Accused Products comprise cylindrical battery cells, each of which constitutes a material part of the '866 Patent's invention that can be incorporated into consumer products.

88. For example, such secondary cylindrical batteries or products containing the same were offered for sale, sold, and marketed by and through Defendants' sales, engineering, and technical marketing efforts and staff. Defendants have known such Accused Products to be especially adapted for practicing, and thus infringing, the '866 Patent since at least the filing of this Complaint. The Accused Products are not staple articles nor a commodity of commerce suitable for substantial non-infringing use because they cannot be used individually without incorporation into electronic components and products. Thus, Defendants are liable as a contributory infringer.

89. Defendants' continued infringement, despite their knowledge of the '866 Patent and infringement thereof, is intentional and deliberate and willful.

90. Defendants' direct, induced, contributory, and willful infringement of the '866 Patent has caused, and will continue to cause, substantial damage to LGES. Therefore, LGES is

entitled to an award of damages adequate to compensate for Defendants' infringement, but not less than a reasonable royalty, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT THREE
INFRINGEMENT OF U.S. PATENT NO. 12,412,924

91. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

92. Defendants have directly infringed and continue to directly infringe the '924 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States the Accused Products (or the products incorporating the Accused Products), including at least Claim 1. By way of example, such Accused Products include the EVE 50E and EVE 40PL secondary cylindrical battery cells.

93. Claim 1 is illustrative of the claims of the '924 Patent. It recites "[a] separator for a lithium battery comprising

a porous polymeric layer having a first side and a second side;

a first layer adjacent the first side of the porous polymeric layer, said first layer comprising pores and solid material, wherein

(a) the solid material comprises inorganic oxide particles and at least one polymer;

(b) a plurality of the inorganic oxide particles in the first layer comprise crystallites having a size in the range of 5nm to 90nm;

(c) a thickness of the first layer is 3 microns or less and a total coating weight of the first layer is less than 6.0 gsm; and

(d) a ratio of the thickness of the first layer to a total thickness of the separator is 10% to 80%."

94. Claim charts on information and belief comparing Claim 1 of the '924 Patent to representative Accused Products (the EVE 50E and EVE 40PL) are attached as Exhibits 10 and 11.³

95. In addition to directly infringing the '924 Patent by making, using, selling, offering to sell, and/or importing Accused Products into the United States, Defendants likewise have induced infringement of the '924 Patent under 35 U.S.C. § 271(b). Defendants have actively encouraged their customers and/or subsidiaries to directly infringe the '924 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused Products. Defendants actively encouraged their customers and/or subsidiaries to employ Defendants' infringing products by and through Defendants' sales, engineering, and technical marketing efforts and staff. In doing so, Defendants' sales engineers and technical marketing staff tout the technological and economic benefits of the accused products and actively encourage use of the accused products. Defendants have known that their customers' and/or subsidiaries' acts constituted direct infringement of at least one claim of the '924 Patent since at least as of the filing of this Complaint. As a result of Defendants' active encouragement and intentional inducement, their customers and/or subsidiaries have committed acts directly infringing the '924 Patent.

96. Moreover, Defendants intend to cause, and have taken affirmative steps to induce, infringement by customers, subsidiaries, and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused Products. As discussed above, Defendants took direct steps to encourage, promote, instruct, and/or direct their customers, subsidiaries, and end-users' use of the Accused Products.

³ These descriptions of infringement are illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Accused Products infringe.

97. As detailed above, the Accused Products infringe the '924 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Accused Products, Defendants are actively inducing infringement of the '924 Patent in violation of 35 U.S.C. § 271(b). Defendants likewise are liable as a contributory infringer of the '924 Patent under 35 U.S.C. § 271(c). Defendants have offered to sell and/or sold within the United States the Accused Products that practice the '924 Patent. The Accused Products comprise cylindrical battery cells, each of which constitutes a material part of the '924 Patent's invention that can be incorporated into consumer products.

98. For example, such secondary cylindrical batteries or products containing the same were offered for sale, sold, and marketed by and through Defendants' sales, engineering, and technical marketing efforts and staff. Defendants have known such Accused Products to be especially adapted for practicing, and thus infringing, the '924 Patent since at least the filing of this Complaint. The Accused Products are not staple articles nor a commodity of commerce suitable for substantial non-infringing use because they cannot be used individually without incorporation into electronic components and products. Thus, Defendants are liable as a contributory infringer.

99. Defendants' continued infringement, despite their knowledge of the '924 Patent and infringement thereof, is intentional and deliberate and willful.

100. Defendants' direct, induced, contributory, and willful infringement of the '924 Patent has caused, and will continue to cause, substantial damage to LGES. Therefore, LGES is entitled to an award of damages adequate to compensate for Defendants' infringement, but not less than a reasonable royalty, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT FOUR
INFRINGEMENT OF U.S. PATENT NO. 12,412,965

101. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

102. Defendants have directly infringed and continue to directly infringe the '965 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States the Accused Products (or the products incorporating the Accused Products), including at least Claim 1. By way of example, such Accused Products include the EVE 40PL secondary cylindrical battery cells.

103. Claim 1 is illustrative of the claims of the '965 Patent. It recites “[a] cylindrical battery, comprising:

an electrode assembly in which a first electrode, a second electrode, and a separator interposed therebetween are wound around a winding axis of the electrode assembly, so as to define a hollow core and an outer circumference of the electrode assembly; and

a cylindrical battery housing accommodating the electrode assembly,

wherein a cross-section of the electrode assembly perpendicular to a winding axis direction includes a first fan-shaped region and a second fan-shaped region,

wherein the first fan-shaped region is defined by a first straight line and a second straight line passing from a center of the core through a core side end of the first electrode and a core side end of the second electrode, respectively, and an outer circumference of the first fan-shaped region is defined as a stress vulnerable region, and

wherein the second fan-shaped region is defined by a third straight line and a fourth straight line passing from the center of the core through an outer circumference side end of the first electrode and an outer circumference side end of the second electrode, respectively, and an outer circumference of the second fan-shaped region is defined as a stress amplification region; and

wherein the electrode assembly has a winding structure in which at least the outer circumference side end of the first electrode of the stress amplification region is spaced apart from an inside of the stress vulnerable region along a circumferential direction of the cross-section of the electrode assembly,

wherein in the winding structure, a circumferential angle of the stress vulnerable region has an angle of 30 degrees or more and 180 degrees or less, and a circumferential angle of the stress amplification region has an angle in a range of 10-degrees to 90 degrees.”

104. A claim chart on information and belief comparing Claim 1 of the '965 Patent to a representative Accused Product (the EVE 40PL) is attached as Exhibit 12.⁴

105. In addition to directly infringing the '965 Patent by making, using, selling, offering to sell, and/or importing Accused Products into the United States, Defendants likewise have induced infringement of the '965 Patent under 35 U.S.C. § 271(b). Defendants have actively encouraged their customers and/or subsidiaries to directly infringe the '965 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused Products. Defendants actively encouraged their customers and/or subsidiaries to employ Defendants' infringing products by and through Defendants' sales, engineering, and technical marketing efforts and staff. In doing so, Defendants' sales engineers and technical marketing staff tout the technological and economic benefits of the accused products and actively encourage use of the accused products. Defendants have known that their customers' and/or subsidiaries' acts constituted direct infringement of at least one claim of the '965 Patent since at least as of the filing of this Complaint. As a result of Defendants' active encouragement and intentional inducement, their customers and/or subsidiaries have committed acts directly infringing the '965 Patent.

106. Moreover, Defendants intend to cause, and have taken affirmative steps to induce, infringement by customers, subsidiaries, and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused Products. As discussed

⁴ This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Accused Products infringe.

above, Defendants took direct steps to encourage, promote, instruct, and/or direct their customers, subsidiaries, and end-users' use of the Accused Products.

107. As detailed above, the Accused Products infringe the '965 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Accused Products, Defendants are actively inducing infringement of the '965 Patent in violation of 35 U.S.C. § 271(b). Defendants likewise are liable as a contributory infringer of the '965 Patent under 35 U.S.C. § 271(c). Defendants have offered to sell and/or sold within the United States the Accused Products that practice the '965 Patent. The Accused Products comprise cylindrical battery cells, each of which constitutes a material part of the '965 Patent's invention that can be incorporated into consumer products.

108. For example, such secondary cylindrical batteries or products containing the same were offered for sale, sold, and marketed by and through Defendants' sales, engineering, and technical marketing efforts and staff. Defendants have known such Accused Products to be especially adapted for practicing, and thus infringing, the '965 Patent since at least the filing of this Complaint. The Accused Products are not staple articles nor a commodity of commerce suitable for substantial non-infringing use because they cannot be used individually without incorporation into electronic components and products. Thus, Defendants are liable as a contributory infringer.

109. Defendants' continued infringement, despite their knowledge of the '965 Patent and infringement thereof, is intentional and deliberate and willful.

110. Defendants' direct, induced, contributory, and willful infringement of the '965 Patent has caused, and will continue to cause, substantial damage to LGES. Therefore, LGES is entitled to an award of damages adequate to compensate for Defendants' infringement, but not less

than a reasonable royalty, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT FIVE
INFRINGEMENT OF U.S. PATENT NO. 12,646,735

111. Plaintiff repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

112. Defendants have directly infringed and continue to directly infringe the '735 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States the Accused Products (or the products incorporating the Accused Products), including at least Claim 1. By way of example, such Accused Products include the EVE 40PL secondary cylindrical battery cells.

113. Claim 1 is illustrative of the claims of the '735 Patent. It recites "[a]n electrode assembly in a jelly-roll form, the electrode assembly having a separator disposed between a first electrode and a second electrode, the electrode assembly being wound about a winding axis along a longitudinal direction, one of the first or second electrodes comprising:

an electrode collector; and

an active material coated on a coating portion of the electrode collector,

wherein the electrode collector comprises a notching tab part on which the active material is not coated, the notching tab part extending from one side of the coating portion in a width direction of the electrode collector perpendicular to the longitudinal direction, the notching tab part only extending from a first end region of the coating portion in the longitudinal direction located at a radially outer portion of the jelly-roll form remote from the winding axis of the jelly-roll form in a radial direction,

wherein the notching tab part has a plurality of notching tabs defined by cut portions where the notching tab part is cut,

the plurality of the notching tabs are arranged along the radially outer portion of the jelly-roll form such that they are spaced apart from one another in the longitudinal direction of the electrode collector by the cut portions but overlap one another in a radial direction of the jelly-roll form, and

each of the plurality of notching tabs is bent radially inward to define bent parts that overlap one another in an axial direction of the jelly-roll form perpendicular to the radial direction and the circumferential direction to provide welding portions.”

114. A claim chart on information and belief comparing Claim 1 of the ’735 Patent to a representative Accused Product (the EVE 40PL) is attached as Exhibit 13.⁵

115. In addition to directly infringing the ’735 Patent by making, using, selling, offering to sell, and/or importing Accused Products into the United States, Defendants likewise have induced infringement of the ’735 Patent under 35 U.S.C. § 271(b). Defendants have actively encouraged their customers and/or subsidiaries to directly infringe the ’735 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused Products. Defendants actively encouraged their customers and/or subsidiaries to employ Defendants’ infringing products by and through Defendants’ sales, engineering, and technical marketing efforts and staff. In doing so, Defendants’ sales engineers and technical marketing staff tout the technological and economic benefits of the accused products and actively encourage use of the accused products. Defendants have known that their customers’ and/or subsidiaries’ acts constituted direct infringement of at least one claim of the ’735 Patent since at least as of the filing of this Complaint. As a result of Defendants’ active encouragement and intentional inducement, their customers and/or subsidiaries have committed acts directly infringing the ’735 Patent.

116. Moreover, Defendants intend to cause, and have taken affirmative steps to induce, infringement by customers, subsidiaries, and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused Products. As discussed

⁵ This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Accused Products infringe.

above, Defendants took direct steps to encourage, promote, instruct, and/or direct their customers, subsidiaries, and end-users' use of the Accused Products.

117. As detailed above, the Accused Products infringe the '735 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Accused Products, Defendants are actively inducing infringement of the '735 Patent in violation of 35 U.S.C. § 271(b). Defendants likewise are liable as a contributory infringer of the '735 Patent under 35 U.S.C. § 271(c). Defendants have offered to sell and/or sold within the United States the Accused Products that practice the '735 Patent. The Accused Products comprise cylindrical battery cells, each of which constitutes a material part of the '735 Patent's invention that can be incorporated into consumer products.

118. For example, such secondary cylindrical batteries or products containing the same were offered for sale, sold, and marketed by and through Defendants' sales, engineering, and technical marketing efforts and staff. Defendants have known such Accused Products to be especially adapted for practicing, and thus infringing, the '735 Patent since at least the filing of this Complaint. The Accused Products are not staple articles nor a commodity of commerce suitable for substantial non-infringing use because they cannot be used individually without incorporation into electronic components and products. Thus, Defendants are liable as a contributory infringer.

119. Defendants' continued infringement, despite their knowledge of the '735 Patent and infringement thereof, is intentional and deliberate and willful.

120. Defendants' direct, induced, contributory, and willful infringement of the '735 Patent has caused, and will continue to cause, substantial damage to LGES. Therefore, LGES is entitled to an award of damages adequate to compensate for Defendants' infringement, but not less

than a reasonable royalty, together with pre- and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

DEMAND FOR JURY TRIAL

121. Plaintiff hereby demands a jury trial for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff requests entry of judgment in their favor and against Defendants as follows:

- A. Declaring that Defendants have infringed either literally and/or under the doctrine of equivalents, and continue to directly infringe United States Patent Nos. 8,420,257, 11,749,866, 12,412,924, 12,412,965, and/or 12,646,735;
- B. Declaring that Defendants have induced infringement and continue to induce infringement of United States Patent Nos. 8,420,257, 11,749,866, 12,412,924, 12,412,965, and/or 12,646,735;
- C. Declaring that Defendants have contributorily infringed and continue to contributorily infringe United States Patent Nos. 8,420,257, 11,749,866, 12,412,924, 12,412,965, and/or 12,646,735;
- D. Awarding lost profits and/or reasonable royalty damages, including treble damages for willful infringement, to Plaintiff in an amount no less than a reasonable royalty for Defendants' infringement of the Asserted Patents, together with the prejudgment and post-judgment interest and costs as permitted under 35 U.S.C. § 284;
- E. Awarding attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;
- F. Ordering Defendants to pay supplemental damages to Plaintiff, including any ongoing royalties and interest, with an accounting, as needed;
- G. Enjoining Defendants from practicing the Asserted Patents; and

H. Awarding such other costs and further relief as the Court may deem just and proper.

Dated: July 21, 2026

Respectfully submitted,

/s/ Andrew M. Holmes

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