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July 31, 2020

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The Honorable Lisa R. Barton
Secretary to the Commission
U.S. International Trade Commission
500 E Street, S.W., Room 112
Washington, D.C. 20436

**Re: Certain Variable Speed Wind Turbine Generators and Components Thereof;
Inv. No. 337-TA-_____**

Dear Secretary Barton:

In accordance with the Commission's Temporary Change to the Filing Procedures dated March 16, 2020 ("Temporary Procedures"), Complainant General Electric Company ("Complainant") is submitting via EDIS the following documents in support of Complainant's request that the Commission commence an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended. Pursuant to the Commission's Rules of Practice and Procedure, a request for confidential treatment for Confidential Exhibits 13C-15C, 35C-40C, 42C-50C, 53C-54C, 58C, and 74C-75C, and the Public Interest Statement, is also included with this submission. Accordingly, GE submits the following:

1. One (1) electronic copy of Complainant's Non-Confidential Verified Complaint pursuant to Commission Rule 210.8(a)(1)(i);
2. One (1) electronic copy of Complainant's Confidential Verified Complaint pursuant to Commission Rules 201.6(c) and 210.8(a)(1)(ii);
3. A Non-Confidential Statement of Public Interest, pursuant to Commission Rule 210.8(b);
4. A Confidential Statement of Public Interest, pursuant to Commission Rule 210.8(b);
5. One (1) electronic copy of the public exhibits to the Verified Complaint, pursuant to Commission Rule 210.8(a)(1)(i);
6. One (1) electronic copy of the confidential exhibits to the Verified Complaint pursuant to Commission Rules 201.6(c) and 210.8(a)(1)(ii);

7. One (1) electronic copy of the certified versions of United States Patent Nos. 6,921,985 (“the ’985 Patent”), 7,629,705 (“the ’705 Patent”) listed as Exhibits 1 and 4 in the Complaint, pursuant to Commission Rules 210.8(a)(1)(i) and 210.12(a)(9)(i);
8. One (1) electronic copy of the certified assignment for the ’985 patent and ’705 patent listed as Exhibits 2 and 5 in the Complaint, pursuant to Commission Rules 210.8(a)(1)(i) and 210.12(a)(9)(ii);
9. One (1) electronic copy of the certified prosecution history for the ’985 patent and ’705 patent listed as Appendices A and E in the Verified Complaint;
10. One (1) electronic copy of the cited references identified in the prosecution history of the ’985 patent and ’705 listed as Appendices B and F in the Complaint, pursuant to Commission Rules 210.8(1)(i) and 210.12(c)(2);
11. One (1) electronic copy of Appendix C, ’985 patent Reexamination history No. 95/000,580, Appendix D, ’985 patent Reexamination History No. 95/000,580 cited references, Appendix G, ’705 patent Reexamination History No. 95/000,633, Appendix H, ’705 patent Reexamination History No. 95/000,633 cited references, Appendix I, ’705 patent Reexamination History No. 90/012,880, Appendix J, ’705 patent Reexamination History No. 90/012,880 cited references, Appendix K, ’705 patent Reexamination History No. 90/012,587 Reexamination History, and Appendix L, ’705 patent Reexamination History No. 90/012,587 cited references;
12. One (1) electronic copy of a letter of certification, pursuant to Commission Rules 201.6(b) and 210.5(d), requesting confidential treatment of information appearing in Confidential Exhibits 13C-15C, 35C-40C, 42C-50C, 53C-54C, 58C, and 74C-75C to the Verified Complaint;
13. One (1) electronic copy of the Certification of Anish R. Deasi.

Please note that Complainant is unable to submit the certified copies of the Asserted Patent, Asserted Patent Prosecution History, Asserted Patent Assignments, and Appendices G, I, and K along with the Complaint due to the Commission’s restrictions on in-person filings in response to COVID-19. Complainant will submit the certified hardcopies when the Commission is in full operation or provides alternative instructions regarding their submission.

Complainant confirms it will serve copies of the non-confidential version of the Complaint and all associated exhibits and appendices upon the institution of this investigation on the proposed Respondents consistent with 19 C.F.R. part 201 (including 19 C.F.R. § 201.16) and the Temporary Procedures.

The Honorable Lisa R. Barton
July 31, 2020
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Weil, Gotshal & Manges LLP

Please feel free to contact me if you have any questions regarding this submission. Thank you for your time and attention to this matter.

Respectfully submitted,



Anish R. Desai

Counsel for Complainant General Electric Company

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July 31, 2020

FILED VIA EDIS

The Honorable Lisa R. Barton
Secretary
U.S. International Trade Commission
500 E Street SW, Room 112A
Washington, DC 20436

Re: Certain Variable Speed Wind Turbine Generators and Components Thereof

Dear Secretary Barton:

Pursuant to Commission Rule 201.6, Complainant General Electric Company (hereinafter "Complainant") respectfully requests confidential treatment of certain confidential business information contained in Confidential Exhibits 13C-15C, 35C-40C, 42C-50C, 53C-54C, 58C, and 74C-75C filed herewith. The information in these exhibits consists of proprietary commercial information, including confidential and proprietary financial data regarding Complainant's domestic investments in plant and equipment and labor and capital related to domestic articles protected by Complainant's Asserted Patents, confidential information about the design and operation of the domestic articles, and confidential information regarding licensing the Asserted Patents.

The proprietary information described herein qualifies as confidential business information under Commission Rule 201.6 because substantially identical information is not available to the public, because the disclosure of this information would cause substantial competitive harm to Complainant and third parties, and because the disclosure of this information would likely impede the Commission's efforts and ability to obtain similar information in the future.

Thank you for your attention. Please contact me with any questions regarding this request for confidential treatment.

The Honorable Lisa R. Barton
July 31, 2020
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Weil, Gotshal & Manges LLP

Respectfully submitted,



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*Counsel for Complainant General Electric
Company*

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION WASHINGTON, D.C.

In the Matter of

CERTAIN VARIABLE SPEED WIND
TURBINE GENERATORS AND
COMPONENTS THEREOF

Investigation No. 337-TA-____

COMPLAINANT’S STATEMENT ON THE PUBLIC INTEREST

Pursuant to U.S. International Trade Commission Rule § 210.8(b), Complainant General Electric Company (“GE”) submits this Statement on the Public Interest with respect to the remedial orders it seeks against proposed respondents Siemens Gamesa Renewable Energy Inc., Siemens Gamesa Renewable Energy S/A, and Gamesa Electric, S.A.U. (collectively “Siemens Gamesa” or “Respondents”). Discussed further below, exclusion of certain variable speed wind turbine generators and components thereof that infringe GE’s U.S. Patent Nos. 6,921,985 (“the ’985 patent”) and 7,629,705 (“the ’705 patent”) will not adversely impact the public health, safety, or welfare conditions in the United States, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers.

Since its entry into the wind turbine market in 2002, GE has invested more than \$2.5 billion in developing next-generation wind turbine technology and is a leading supplier of wind turbines in the United States. GE’s continued success in this industry depends, in part, on its ability to protect its technology through enforcement of its patent rights, including the ’985 patent and the ’705 patent. The Commission recognizes that “the public interest favors the protection of U.S. intellectual property rights.” *Certain Electrical Connectors and Products*

Containing Same, 337-TA-374, Comm’n Op. at 19 (May 3, 1996). Here, the potential damage to GE’s intellectual property rights outweighs any adverse impact on the public interest, especially in view of GE’s and its licensees’ capacity to replace the volume of variable speed wind turbine generators and components thereof that are excluded by the requested remedial orders. Should the Commission find a violation of Section 337, issuance of the requested orders would promote the public interest.

I. How the Articles Potentially Subject to the Requested Remedial Orders Are Used in the United States

The articles subject to the requested remedial orders are variable speed wind turbine generators and components thereof, which are used for renewable energy production. The products are imported into, sold for importation into, and/or sold after importation in the United States by or on behalf of Siemens Gamesa. The articles subject to the requested remedial orders allow a wind turbine generator to remain online during a low-voltage event and connected to the power grid during and subsequent to a zero-voltage event, mitigating against damage and shutdown risks.

II. Identification of any Public Health, Safety, or Welfare Concerns in the United States Relating to the Requested Remedial Orders

The issuance of the requested remedial orders would not adversely affect the public health, safety, or welfare in the United States. For example, in 2019, GE’s market share of new U.S. wind turbine installations amounted to approximately 45%, and [REDACTED]

[REDACTED]

[REDACTED]. Exhibit 59 at 3. In 2019, Siemens Gamesa had a market share of 16% of new installations. *Id.* With multiple suppliers of directly competitive goods in the United States, issuing the requested remedial orders does not raise any concerns as to the public health, safety, or welfare in the United States if the requested relief were granted. Issuance of the

requested orders would also promote the public welfare given the Commission's strong interest in the enforcement of patents. *See Certain Baseband Processor Chips & Chipsets, Transmitter & Receiver (Radio) Chips, Power Control Chips, & Prods. Containing Same, Including Cellular Telephone Handsets*, Inv. No. 337-TA-543, Comm'n Op., 2007 ITC LEXIS 621, at *105 (Jun. 19, 2007) (reversed on other grounds). This strong interest is underscored by the significance of the '985 patent's and '705 patent's technologies to the development of the domestic wind turbine generator industry. Enforcement of these patents, therefore, is critical to the public welfare.

III. Identification of Like or Directly Competitive Articles that GE, Its Licensees, or Third Parties Make Which Could Replace the Subject Articles

There are like or directly competitive products that could replace the articles subject to the requested remedial orders. For example, GE and its licensees supply the United States with wind turbine generators and components thereof that provide renewable energy production. These products directly compete with the articles subject to the requested remedial orders and, as discussed above, constitute a large share of the domestic wind turbine market.

IV. Whether GE or Its Licensees Have the Capacity to Replace the Volume of Articles Subject to the Requested Remedial Orders in a Commercially Reasonable Time in the United States

GE and its licensees have the capacity to replace the volume of articles subject to the requested remedial orders in a commercially reasonable time in the United States. For example, in 2019, GE's market share of new U.S. wind turbine installations amounted to approximately 45%, and [REDACTED]. [REDACTED]. Exhibit 59 at 3. In 2019, Siemens Gamesa had a market share of 16% of new installations. *Id.* If the Commission were to issue the requested remedial orders, the suppliers in the market not subject to the orders, including GE and its licensees, have the capacity to replace the excluded articles. Additionally,

GE is presently unaware of any manufacturing constraints in the industry that would impede the supply of replacement products.

V. The Requested Remedial Orders Will Not Adversely Impact U.S. Consumers

The requested exclusion order will not adversely impact consumers in the United States. As explained above, consumers would not be deprived of similar products and there would be no shortage of competing goods because there are multiple suppliers in the market and GE and its licensees can replace the articles subject to exclusion. Furthermore, GE and its licensees offer comparable overall quality and features that are available to consumers in the United States. Indeed, in the United States, over 25,000 GE wind turbines are installed onshore with the capacity to power the equivalent of 11 million homes. Ex. 7. Consumers also stand to benefit from removing infringing articles from the marketplace. Accordingly, the requested remedial orders favor the strong public interest in protecting GE's intellectual property rights.

Dated: July 31, 2020

Respectfully submitted,



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

IN THE MATTER OF

CERTAIN VARIABLE SPEED WIND
TURBINE GENERATORS AND
COMPONENTS THEREOF

Investigation No. 337-TA-____

CERTIFICATION

I, Anish R. Desai, counsel for General Electric Company ("Complainant"), declare as follows:

1. I am duly authorized by Complainant to execute this certification.
2. I have reviewed Confidential Exhibits 13C-15C, 35C-40C, 42C-50C, 53C-54C, 58C, and 74C-75C to Complainant's Verified Complaint, for which Complainant seeks confidential treatment.
3. To the best of my knowledge, information, and belief, founded after a reasonable inquiry, substantially-identical information to that contained in the exhibits is not available to the public.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 31st day of July, 2020.



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*Counsel for Complainant General Electric
Company*

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION WASHINGTON, D.C.

IN THE MATTER OF

CERTAIN VARIABLE SPEED WIND
TURBINE GENERATORS AND
COMPONENTS THEREOF

Investigation No. 337-TA-____

COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED

COMPLAINANT:

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PROPOSED RESPONDENTS:

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Appendix C	U.S. Patent No. 6,921,985 Certified <i>Inter Partes</i> Reexamination History
Appendix D	U.S. Patent No. 6,921,985 Reexamination Cited References
Appendix E	U.S. Patent No. 7,629,705 Certified Prosecution History
Appendix F	U.S. Patent No. 7,629,705 Prosecution History Cited References
Appendix G	U.S. Patent No. 7,629,705 Certified <i>Inter Partes</i> Reexamination History (No. 95/000,633)
Appendix H	U.S. Patent No. 7,629,705 Reexamination Cited References (No. 95/000,633)
Appendix I	U.S. Patent No. 7,629,705 Certified <i>Ex Partes</i> Reexamination History (No. 90/012,880)
Appendix J	U.S. Patent No. 7,629,705 Reexamination Cited References (No. 90/012,880)
Appendix K	U.S. Patent No. 7,629,705 Certified <i>Ex Partes</i> Reexamination History (No. 90/012,587)
Appendix L	U.S. Patent No. 7,629,705 Reexamination Cited References (No. 90/012,587)
Exhibit 1	Certified Copy of U.S. Patent No. 6,921,985
Exhibit 2	Certified Copies of Recorded Assignment for U.S. Patent No. 6,921,985
Exhibit 3	Foreign Counterparts of U.S. Patent No. 6,921,985
Exhibit 4	Certified Copy of U.S. Patent No. 7,629,705
Exhibit 5	Certified Copies of Recorded Assignment for U.S. Patent No. 7,629,705
Exhibit 6	Foreign Counterparts of U.S. Patent No. 7,629,705
Exhibit 7	A. Kover, <i>For The Record: GE Onshore Wind Turbines in North American Can Now Power the Equivalent of 11 Million U.S. Homes</i> (May 21, 2018)


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Exhibit 8	Gamesa Corporación Tecnológica S.A. and Siemens AG Merger Agreement
Exhibit 9	[Reserved]
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Exhibit 16	U.S. Patent No. 6,921,985 Infringement Chart for SWT-2.3
Exhibit 17	U.S. Patent No. 7,629,705 Infringement Chart for SWT-2.3
Exhibit 18	Tucson Electric Power Company 2019 Preliminary Integrated Resource Plan
Exhibit 19	[Reserved]
Exhibit 20	Siemens Gamesa Press Release dated April 25, 2019
Exhibit 21	[Reserved]
Exhibit 22	SGRE Consolidated Financial Statements and Management's Report for the year ended September 30, 2018 (excerpt)
Exhibit 23	PDF of https://www.siemensgamesa.com/en-int/about-us/location-finder# (as of July 29, 2020)
Exhibit 24	[Reserved]
Exhibit 25	[Reserved]
Exhibit 26	Panjiva Import Records – July 15 to July 26, 2020
Exhibit 27	Siemens Onshore Geared Platform Brochure
Exhibit 28	K2 Wind Power Project Report

Exhibit #	Description
Exhibit 29	Nelson, et al., <i>Fault Ride-Through Capabilities of Siemens Full-Converter Wind Turbines</i> , 978-1-4577-1002-5/11 (IEEE 2011)
Exhibit 30	Creating the Most from Wind
Exhibit 31	<i>Safety and Protection for Wind Turbines</i> , Siemens (2012)
Exhibit 32	North Kent Wind 1 Project: Draft Wind Turbine Specifications
Exhibit 33	Grid code compliance
Exhibit 34	Siemens Preliminary Developer Package
Exhibit 35C	
Exhibit 36C	Confidential Declaration of Ryan Legg
Exhibit 37C	U.S. Patent No. 6,921,985 Domestic Industry Claim Chart for GE 1MW Platform
Exhibit 38C	U.S. Patent No. 6,921,985 Domestic Industry Claim Charts for GE 2MW Platform
Exhibit 39C	U.S. Patent No. 7,629,705 Domestic Industry Claim Chart for GE 1MW Platform
Exhibit 40C	U.S. Patent No. 7,629,705 Domestic Industry Claim Charts for GE 2MW Platform
Exhibit 41	Siemens Full-Converter Wind Turbine Technology
Exhibit 42C	Technical Documentation Wind Turbine Generator Systems GE 1.5 Series
Exhibit 43C	Software Description GEWE 2.X DFIG
Exhibit 44C	One Line Drawings – 2.0/2.3 MW 50/60 Hz
Exhibit 45C	One Line Drawings – 1.x ESS
Exhibit 46C	Technical Documentation Wind Turbine Generator Systems 1&2 MW Platform – 50/60 Hz
Exhibit 47C	Technical Specification SPC_freqconver_690/575V_50/60Hz

Exhibit #	Description
Exhibit 48C	Main Control Cabinet Drawings
Exhibit 49C	Effect of Wind Turbine Generators on Transmission-Grid Electrical Transients for GE 1.5 MW, 60 Hz Systems
Exhibit 50C	Software Description GEWE 1.x ESS
Exhibit 51	GE 1.5 MW Brochure
Exhibit 52	GE News Report
Exhibit 53C	Technical Documentation Wind Turbine Generator Systems 1.6 - 50 Hz and 60 Hz
Exhibit 54C	DFIG Electrical Simplified System Wind Converter Product Description
Exhibit 55	[Reserved]
Exhibit 56	GE-Powered Persimmon Creek Wind Farm Now Operating In Oklahoma, North American Wind Power, Sept. 11, 2018
Exhibit 57	GE to Supply 250MW Willow Springs Project, Wind Power Monthly, Apr. 6, 2017
Exhibit 58C	Grid Interconnection documents 2.3 DFIG-116-50Hz
Exhibit 59	American Wind Energy Association U.S. Wind Industry 4Q 2019 Market Report – Public Version
Exhibit 60	U.S. Patent No. 6,921,985 Infringement Chart for SG 4.5
Exhibit 61	U.S. Patent No. 7,629,705 Infringement Chart for SG 4.5
Exhibit 62	Preliminary Developer Package, SG 4.5-145 (dated April 30, 2018)
Exhibit 63	PDF of https://www.en.wind-turbine-models.com/about (as of June 30, 2020)
Exhibit 64	PDF of https://en.wind-turbine-models.com/turbines/647-siemens-swt-2.3-108 (as of June 30, 2020).
Exhibit 65	SGRE August 28 press release, https://www.siemensgamesa.com/-/media/siemensgamesa/downloads/en/newsroom/2019/08/pressrelease-siemens-gamesa-southern-hill-100mw-usa-en.pdf

Exhibit #	Description
Exhibit 66	https://www.midamericanenergy.com/media/pdf/iowa-wind-farm-locations.pdf
Exhibit 67	PDF of https://www.siemensgamesa.com/en-int/newsroom/2019/05/190522-siemens-gamesa-news-sg-4-5-145-for-the-milligan-wind-farm-in-the-usa (as of June 30, 2020)
Exhibit 68	PDF of https://www.gamesaelectric.com/producto/wind-generators/ (as of June 30, 2020)
Exhibit 69	PDF of https://www.gamesaelectric.com/producto/dfig-4-5/ (as of June 30, 2020)
Exhibit 70	[Reserved]
Exhibit 71	Gamesa Electric General Presentation (2013), <i>available at</i> https://pdf.directindustry.com/pdf/gamesa-electric/gamesa-electric-general-presentation/20927-404857.html
Exhibit 72	PDF of https://www.gamesaelectric.com/madrid/ (as of June 30, 2020)
Exhibit 73	PDF of https://www.gamesaelectric.com/reinosa/ (as of June 30, 2020).
Exhibit 74C	[REDACTED]
Exhibit 75C	[REDACTED]

I. INTRODUCTION

1. Complainant General Electric Company (“GE”) requests that the United States International Trade Commission institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, to remedy the unlawful importation into the United States, sale for importation into the United States, and/or sale within the United States after importation by the owner, importer, or consignee (or agents thereof), of certain variable speed wind turbine generators and components thereof that infringe GE’s valid and enforceable U.S. Patent Nos. 6,921,985 (the “’985 patent”) and 7,629,705 (the “’705 patent”) (collectively, the “Asserted Patents”).

2. Proposed Respondents Siemens Gamesa Renewable Energy Inc., Siemens Gamesa Renewable Energy S/A, and Gamesa Electric, S.A.U. (collectively “Siemens Gamesa” or “Respondents”) have engaged in unfair acts in violation of Section 337 through and in connection with the unlicensed importation into the United States, sale for importation into the United States, and/or sale within the United States after importation of certain variable speed wind turbine generators and components thereof that infringe, literally or under the doctrine of equivalents, the claims identified in the following table¹:

Asserted Patent	Independent Claims	Dependent Claims
’985 patent	1, 6, 29	3, 7, 12, 21–24, 30, 33–38
’705 patent	1	--

3. GE seeks as relief, a permanent limited exclusion order barring from entry into the United States certain variable speed wind turbine generators and components thereof by or on behalf of Siemens Gamesa. GE also seeks as relief, permanent cease and desist orders prohibiting

the importation, sale, offer for sale, advertising, marketing, distributing, or the solicitation of any sale by each Respondent of certain variable speed wind turbine generators and components thereof covered by the Asserted Claims.

II. COMPLAINANT

4. Complainant GE is a corporation that is organized and existing under the laws of the State of New York, with its principal place of business at 5 Necco Street, Boston, Massachusetts 02210. GE engages in the development, manufacture, and distribution of wind turbines, including variable speed wind turbine generators and components thereof.

5. GE is one of the world's leading wind turbine suppliers, with over 35,000 installed across the globe. In the United States, over 25,000 GE wind turbines are installed onshore with the capacity to power the equivalent of 11 million homes. Ex. 7. Since its entry into the wind turbine market in 2002, when it offered one wind turbine model, GE has developed a full suite of turbines created for a variety of wind environments. This product evolution reflects GE's more than \$2.5 billion investment in next-generation wind turbine technology.

6. GE's investments in and employment of its wind turbine products and technology have been recognized as constituting a domestic industry under Section 337 as to the '985 patent. In *Certain Variable Speed Wind Turbines and Components Thereof*, Inv. No. 337-TA-641 ("*Variable Speed Wind Turbines*") the presiding ALJ, on summary determination, found that GE satisfied the economic prong of the domestic industry requirement as to the '985 patent. *Variable Speed Wind Turbines*, Initial Determination,

¹ The claims identified in this table are referred to herein as the "Asserted Claims."

Order No. 30 (Apr. 2009). The Commission did not review the ALJ's finding as to the economic prong of the domestic industry. *Variable Speed Wind Turbines*, Comm'n Op. at 3-4, 2010 WL 741200, at *2 (Mar. 2010). Further, the U.S. Court of Appeals for the Federal Circuit found that GE's domestic industry wind turbines practiced claim 15 of the '985 patent. *GE v. ITC*, 685 F.3d 1034, 1037 (Fed. Cir. 2012).

7. GE's domestic investments also relate to products practicing the '705 patent—a patent GE has successfully enforced against unauthorized use in the United States. On February 11, 2010, GE filed a complaint against Mitsubishi Heavy Industries, Ltd. and Mitsubishi Power Systems Americas, Inc. (collectively, "Mitsubishi") in the United States District Court for the Northern District of Texas (Case No. 3:10-cv-00276) asserting that Mitsubishi's wind turbines configured for zero voltage ride through infringed claim 1 of the '705 patent. Following a jury trial in February-March 2012 and a bench trial in October 2012, the Court entered final judgment that claim 1 of the '705 patent was infringed, not invalid and not unenforceable; awarded GE \$166,750,000 in lost profits and \$3,445,000 in reasonably royalty damages; and entered a permanent injunction against Mitsubishi. Mitsubishi and GE reached a settlement regarding all legal actions between the parties in December 2013.

8. Since the 641 Investigation and the subsequent Mitsubishi district court case, GE has continued its domestic investments with respect to the Asserted Patents including significant investments in plant and equipment, significant employment of labor and capital, and substantial investments in the exploitation of the Asserted Patents through engineering and research and development.

III. PROPOSED RESPONDENTS

A. Siemens Gamesa Renewable Energy Inc. f/k/a Siemens Wind Power Inc.

9. In fiscal year 2018, Siemens Wind Power Inc. changed its name to Siemens Gamesa Renewable Energy Inc. Ex. 22 at 14 (consolidated financial statements).

10. Siemens Gamesa Renewable Energy Inc. is organized under the laws of Delaware, and has its headquarters and a principal place of business at 3500 Quadrangle Blvd, Orlando, FL 32817. Upon information and belief, Siemens Gamesa Renewable Energy Inc. engages in the importation, sale, and service of variable speed wind turbines and components thereof, including the accused SWT-2.3 and SG 4.5 wind turbine generators.

B. Siemens Gamesa Renewable Energy A/S f/k/a Siemens Wind Power A/S

11. In fiscal year 2017, Siemens Wind Power A/S changed its name to Siemens Gamesa Renewable Energy A/S. Ex. 22 at 15.

12. Upon information and belief, Siemens Gamesa Renewable Energy A/S is a corporation organized under the laws of Denmark, having its headquarters and a principal place of business at Borupvej 16, 7330 Brande, Denmark. Upon information and belief, Siemens Gamesa Renewable Energy Inc. engages in the development, manufacture, sale, and importation of variable speed wind turbine generators and components thereof, including the accused SWT-2.3 wind turbine generators.

C. Gamesa Electric, S.A.U.

13. Upon information and belief, Gamesa Electric, S.A.U. is a corporation organized under the laws of Spain, having its headquarters and a principal place of business at Parque Tecnológico de Bizkaia, Building 206, 48170 Zamudio, BI, Spain. Upon information and belief,

Gamesa Electric, S.A.U. engages in the development, manufacture, sale, and importation of variable speed wind turbine generators and components thereof, including the accused SG 4.5 wind turbine generators.

IV. THE PRODUCTS AT ISSUE

14. Pursuant to Commission Rule 210.12(a)(12), the products at issue are variable speed wind turbine generators having low and zero voltage ride through capability and components thereof, including generators, power converters, uninterruptible power supplies, turbine controllers, blade pitch control systems, and converter controllers. The '985 patent relates to wind turbine technology that allows a wind turbine to remain online during a low-voltage event, and mitigates against shutdown risks by protecting the generator rotor and the power converter from the damage that such an event can cause. The '705 patent relates to wind turbine technology that allows a wind turbine generator coupled to an electric power system to remain connected to the electric power system during and subsequent to the electric power system voltage decreasing to approximately zero volts.

15. GE manufactures, sells, and services variable speed wind turbine generators and components thereof, including its 1 MW and 2 MW platforms that practice the Asserted Patents. These products are able to provide emission-free electricity at costs below other renewable resources. Exhibits 10 and 11 contain brochures of at least some of the GE models that practice the Asserted Patents.

16. Siemens Gamesa manufactures, sells, and services variable speed wind turbine generators and components thereof, both for onshore and offshore wind turbines. The accused Siemens Gamesa products are its variable speed wind turbine generators and components thereof that include low and zero voltage ride through capabilities, including, but not limited to, Siemens

Gamesa's wind turbine generators used with the SWT-2.3 wind turbine (Ex. 12) and SG 4.5 wind turbine (Ex. 62).

17. On information and belief, the accused Siemens Gamesa products further include Siemens Gamesa's current and legacy series of variable speed wind turbine generators, including without limitation, wind turbine generators used in the following wind turbines: the 2.X series (including SG 2.1-114, SG 2.2-122, SG 2.6-114, SG 2.9-129), the 3.X series (including SG 3.4-132), the 4.X series (including SG 5.0-132, SG 5.0-145), the 5.X series (including SG 5.8-155, SG 5.8-170); SG-6.0-154, SG-7.0-154, SG 8.0-167 DD, SG 10.0-193 DD, SG 4.5-145, SWT-DD-120, SWT-DD-130, SWT-DD-142, SWT-2.3-108, SWT-3.2-113, SWT-3.4-108, SWT-6.0-154, and SWT-7.0-154 (the "Accused Products").²

V. THE ASSERTED PATENTS

A. The '985 Patent

1. Identification and Ownership of the '985 Patent

18. The '985 patent is entitled "Low Voltage Ride Through For Wind Turbine Generators" and names Wilhelm Janssen, Henning Luetze, Andreas Buecker, Till Hoffmann, and Ralf Hagedorn as inventors. As required by Commission Rule 210.12(a)(9)(i), a certified copy of the '985 patent is attached as Exhibit 1. The '985 patent issued on July 26, 2005, based on U.S. App. No. 10/350,452, filed on January 24, 2003. The '985 patent expires on May 6, 2023.

² The numbers in the names of the accused products roughly correspond to rated power in megawatts and rotor diameter in meters. So the "SWT-2.3-108" would be a wind turbine with a rated power of 2.3 MW and a rotor diameter of 108 meters.

19. GE owns by assignment the entire right, title, and interest to and in the '985 patent. As required by Commission Rule 210.12(a)(9)(ii), a copy of the assignment history for the parent application to the '985 patent is attached as Exhibit 2.

20. Together with this Complaint, GE has filed a certified copy and three (3) additional copies of the prosecution history of the '985 patent (Application Serial No. 10/350,452) as Appendix A. GE has also filed as Appendix B four (4) copies of the patent and technical references identified in the prosecution history of the application leading to the issuance of the '985 patent.

21. In addition, GE has filed a certified copy and three (3) additional copies of the prosecution history of the reexamination of the '985 patent (Serial No. 90/000,580) as Appendix C. GE has also filed four (4) copies of the patent and technical references identified in the reexamination as Appendix D.

2. Foreign Counterparts to the '985 Patent

22. Exhibit 3 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned, or withdrawn, which contains a disclosure corresponding to the '985 patent, with an indication of the prosecution status of each such patent application. No other foreign counterparts to the '985 patent have been filed, abandoned, withdrawn, or rejected.

3. Licensees Under the '985 Patent

23. A list of each licensee under the '985 patent is included as Confidential Exhibit 13C.

24. [REDACTED]

[REDACTED]

[REDACTED]

25. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

26. [REDACTED]

[REDACTED]

4. Non-Technical Description of the '985 Patent

27. To reliably supply power to the grid, wind turbine generators (as well as other types of power generators) must conform to grid interconnection standards that define

requirements imposed on power suppliers and large power consumers. In particular, a “low voltage ride through” (LVRT) requirement typically requires that a power generation unit must remain connected to and synchronized with the grid during a low voltage event, such as when a power line goes down during a storm. Local and remote problems on the grid produce voltage dips that cause conventional wind turbines—normally programmed to drop out at a pre-set voltage—to disconnect from the grid and even shut down. This response is highly undesirable as it creates additional stress on the grid. The ’985 patent discloses a system that allows the wind turbine to remain online during a low-voltage event, yet still protects the generator from the damage such events can cause.

28. One substantial risk to conventional wind turbines from low-voltage events is damage to the wind turbine generator and controllers. In a low voltage event, energy continues to be imparted to the wind turbine by the wind, but the wind turbine can lose the ability to export that energy to the grid because of the low-voltage event. Thus, the wind turbine could be required to absorb and store the wind energy in the form of rapidly increasing rotor speeds. The generator rotor could, in this way, reach its overspeed limit and cause the wind turbine to disconnect from the grid, shut down, or risk being damaged.

29. Technology disclosed in the ’985 patent minimizes the disparity in incoming and outgoing power during a low-voltage event first by reducing the incoming power. For this purpose, it becomes important to control the blades themselves; blade control may include the ability to “pitch” them into the wind or out of the wind to varying degrees. (Pitching the blades refers to rotating the blades themselves rather than turning the entire wind turbine—much like rotating flaps on a plane’s wings rather than changing the plane’s direction.) Regulating the rotational speed of the generator rotor can be accomplished by

regulating the rotational speed of the turbine rotor, which can, in turn, be controlled by pitching the blades of the turbine. The blade pitch mechanism can pitch the blades out of the wind to decrease the energy imparted by the wind.

30. The '985 patent also discloses subject matter to protect the power converter during low-voltage events, which may be accompanied by very high currents. Power converters are particularly susceptible to these high currents. The '985 patent includes control mechanisms to shunt these large currents away from the power converter circuitry by temporarily short-circuiting the power converter during the low voltage event.

31. The '985 patent further discloses disconnecting unneeded loads while maintaining power to critical components, such as the turbine controller and blade pitch control system, through the use of an uninterruptible power supply. The wind turbine has many systems running off the voltage available during normal operation. But in response to a low-voltage event, the wind turbine controller disconnects the power to non-critical systems so that the uninterruptable power supply can provide failsafe power to critical systems.

B. The '705 Patent

1. Identification and Ownership of the '705 Patent

32. The '705 patent is entitled "Method and Apparatus For Operating Electrical Machines" and names Sidney A. Barker, Anthony Klodowski, John D'Atre, Einar Larsen, Goran Drobnjak as inventors. As required by Commission Rule 210.12(a)(9)(i), a certified copy of the '705 patent is attached as Exhibit 4. The '705 patent issued on December 8, 2009, based on U.S. App. No. 11/551,430, filed on October 20, 2006. The '705 patent expires on December 6, 2027.

33. GE owns by assignment the entire right, title, and interest to and in the '705 patent. As required by Commission Rule 210.12(a)(9)(ii), a copy of the assignment history for the parent application to the '705 patent is attached as Exhibit 5.³

34. Together with this Complaint, GE has filed a certified copy and three (3) additional copies of the prosecution history of the '705 patent (Application Serial No. 11/551,430) as Appendix E. GE has also filed as Appendix F four (4) copies of the patent and technical references identified in the prosecution history of the application leading to the issuance of the '705 patent.

35. In addition, GE has filed a certified copy and three (3) additional copies of the prosecution histories of the three reexamination proceedings of the '705 patent as follows: Serial No. 95/000,633 as Appendix G ("633 reexamination"), Serial No. 90/012,880 as Appendix I ("880 reexamination"), and Serial No. 90/012,587 as Appendix K, ("587 reexamination"). GE has also filed four (4) copies of the patent and technical references identified in each of the reexamination proceedings as follows: the '633 reexamination as Appendix H, the '880 reexamination as Appendix J, and the '587 reexamination as Appendix L.

2. Foreign Counterparts to the '705 Patent

36. Exhibit 6 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned, or withdrawn, which contains a disclosure corresponding to the '705 patent, with

³ The certified copy of the '705 patent's assignment history includes an irrelevant assignment for an unrelated patent, namely the assignment from John Fraser to Koninklijke Philips Electronics N.V. for U.S. Pat. App. No. 60/451,148. *See* Ex. 5 at 4. The proper assignment history for the

an indication of the prosecution status of each such patent application. No other foreign counterparts to the '705 patent have been filed, abandoned, withdrawn, or rejected.

3. Licensees Under the Asserted Patent

37. A list of each licensee under the '705 patent is included as Confidential Exhibit 15C.

4. Non-Technical Description of the '705 Patent

38. While the '985 addresses LVRT, the '705 patent is directed to wind turbine generators that are capable of “zero voltage ride through” (ZVRT), which is a different and distinct technology. Just as a power grid can experience a low voltage event, as described above with respect to the '985 patent, so too can power grids experience a more severe “zero voltage event.” For example, a lightning strike can disturb a power grid to the extent that the voltage on the grid decreases to zero volts. In the methods and systems described and claimed in the 705 patent, when a wind turbine is unable to detect the frequency and phase of the utility grid voltage because the utility grid experiences a voltage drop to approximately zero volts, the wind turbine generator (electrical machine) remains electrically connected to the grid (electric power system) during and subsequent to the zero voltage event, thereby achieving “zero voltage ride through” (ZVRT).

39. To facilitate wind turbine ride through during and subsequent to zero voltage events, the '705 patent describes coupling a control system to the electrical machine and the electric power system, and configuring the control system and the electrical machine such that the electrical machine remains connected to the grid during and subsequent to voltage

'705 patent (U.S. Pat. App. No. 10/551,430) is nevertheless included in Exhibit 5.

decreases to approximately zero volts, when the wind turbine is no longer able to observe the grid voltage frequency and phase. Configuring a wind turbine to remain electrically connected “subsequent to” the fault is imperative because this allows the turbine to support the grid immediately after the fault has ceased and mitigate the possibility of follow-on voltage drops that could lead to black outs. Ex. 4, ’705 patent at 8:43–46 (“[F]acilitating generator 118 to remain electrically connected to the grid during a ZVRT event subsequently facilitates generator 118 continuing to operate thereby supporting the grid during the transient.”).

VI. UNLAWFUL AND UNFAIR ACTS OF RESPONDENTS’ PATENT INFRINGEMENT

A. ’985 Patent Infringement

1. Direct Infringement

40. On information and belief, Siemens Gamesa imports, sells for importation, and/or sells in the United States after importation variable speed wind turbine generators and components thereof that directly infringe at least claims 1, 3, 6, 7, 12, 21–24, 29, 30, and 33–38 of the ’985 patent

41. Claim charts that apply the independent claims 1, 6, and 29 of the ’985 patent to the Siemens Gamesa SWT-2.3 wind turbine generators are attached to the Complaint as Exhibit 16.

42. Claim charts that apply the independent claims 1 and 6 of the ’985 patent to the Siemens Gamesa SG 4.5 wind turbine generators are attached to the Complaint as Exhibit 60.

2. Indirect Infringement

43. On information and belief, Siemens Gamesa imports, sells for importation, and/or sells in the United States after importation variable speed wind turbine generators and components thereof that contribute to the infringement of the asserted claims of the '985 patent. Siemens Gamesa has had knowledge of the '985 patent and knowledge that use of the Accused Products infringes claims of the '985 patent since at least the filing of this Complaint. Siemens Gamesa also has had knowledge of the '985 patent and that the Accused Products infringe since at least July 11, 2018 and November 15, 2018, on which dates GE provided notice that Siemens Gamesa practices claims of the '985 patent. Contemporaneously with the filing of this Complaint, GE has provided Siemens Gamesa with a copy of the Complaint and non-confidential exhibits to the Complaint. As a result, Siemens Gamesa received notice of the '985 patent and the infringement at issue no later than the filing of this Complaint.

44. Siemens Gamesa knows that its Accused Products, having low voltage ride through capabilities, are especially made or especially adapted for use in the infringement of the asserted claims of the '985 patent. The Accused Products are not staple articles or commodities of commerce suitable for substantial non-infringing use, and the Accused Products are material parts of the invention of the '985 patent. As discussed in the claim chart in Exhibit 16, the Accused Products constitute or contain components such as a generator designed to remain connected to the power grid when the voltage at the output terminals of the generator is less than 50% of a rated voltage of the generator, a power converter, and an uninterruptible power supply coupled to a turbine controller, a blade pitch control system, and a converter controller to provide power during a low voltage event. The generator, power converter, uninterruptible power supply, turbine controller, blade pitch control system, and converter controller of the

Accused Products are material to practicing the '985 patent, and the LVRT functionality has no substantial non-infringing use. Accordingly, Siemens Gamesa is contributing to the direct infringement of the Asserted Claims of the '985 patent when the Accused Products are imported, assembled, installed and/or commissioned.

45. Siemens Gamesa induces infringement of the '985 patent through, among other things, the sale, offer for sale and importation in the United States of the Accused Products to direct infringers that include, without limitation, the customers who use Siemens Gamesa's wind turbine generators, with the specific intent that the wind turbine generators be used in an infringing manner. Siemens Gamesa has also supplied generators and controls that are necessary to use the wind turbine generators in an infringing manner. *See* Ex. 16. The supply of these components of the wind turbine generators thus induces customers to use the Accused Products in an infringing manner. On information and belief, Siemens Gamesa has encouraged customers by providing installation, commissioning and training services and by providing instructions and operating manuals to facilitate and instruct its customers' use of the wind turbine generators in an infringing manner.

B. '705 Patent Infringement

1. Direct Infringement

46. On information and belief, customers of Siemens Gamesa directly infringe claim 1 of the '705 patent when the Accused Products are commissioned for operation and when put online (i.e. connected to a power grid). Claim charts that apply the independent claim 1 of the '705 patent to the Siemens Gamesa SWT-2.3 and SG 4.5 wind turbine generators are attached to the Complaint as Exhibit 17 and Exhibit 61, respectively.

2. Indirect Infringement

47. On information and belief, Siemens Gamesa imports, sells for importation, and/or sells in the United States after importation variable speed wind turbine generators and components thereof that contribute to the infringement of the asserted claim of the '705 patent. Siemens Gamesa has had knowledge of the '705 patent and knowledge that use of the Accused Products infringes at least one claim the '705 patent since at least the filing of this Complaint. Siemens Gamesa also has had knowledge of the '705 patent and that the Accused Products infringe since at least July 11, 2018 and November 15, 2018, on which dates GE provided notice that Siemens Gamesa infringes the '705 patent. Contemporaneously with the filing of this Complaint, GE has provided Siemens Gamesa with a copy of the Complaint and non-confidential exhibits to the Complaint. As a result, Siemens Gamesa received notice of the '705 patent and the infringement at issue no later than the filing of this Complaint.

48. Siemens Gamesa knows that its Accused Products, having zero voltage ride through capabilities, are especially made or especially adapted for use in the infringement of the asserted claim of the '705 patent. The Accused Products are not staple articles or commodities of commerce suitable for substantial non-infringing use, and the Accused Products are material parts of the invention of the '705 patent. As discussed in the claim charts in Exhibits 17 and 61, the Accused Products constitute or contain components such as an electric machine and control system that facilitate zero voltage ride through. These components are material to practicing the '705 patent, and have no substantial non-infringing use. Accordingly, Siemens Gamesa is contributing to the direct infringement of the asserted claim of the '705 patent when the Accused Products are imported, assembled, installed and/or commissioned.

49. Siemens Gamesa induces infringement of the '705 patent through, among other things, the sale, offer for sale and importation in the United States of the Accused Products to direct infringers that include, without limitation, the customers who use Siemens Gamesa's wind turbine generators, with the specific intent that the wind turbine generators be used in an infringing manner. Siemens Gamesa has also supplied generators and controls that are necessary to use the wind turbine generators in an infringing manner. Exs. 17, 61. The supply of these components of the wind turbine generators thus induces customers to use the Accused Products in an infringing manner. On information and belief, Siemens Gamesa has encouraged customers by providing installation, commissioning and training services and by providing instructions and operating manuals to facilitate and instruct its customers' use of the wind turbine generators in an infringing manner.

VII. SPECIFIC INSTANCES OF IMPORTATION AND SALE

50. Siemens Gamesa has contracted for the sale of SWT 2.3-108 wind turbines and SG 4.5-145 wind turbines in the United States to at least EDF Renewables North America ("EDF") and MidAmerican Energy Company. The SWT-2.3-108 and SG 4.5-145 wind turbine generators are Accused Products that directly infringe Complainant's asserted patents when commissioned and when put online (i.e. connected to a power grid). Exs. 16-17, 60-61 (infringement charts). Siemens Gamesa, EDF, and MidAmerican Energy Company are not licensed under the '985 and '705 patents. On information and belief, Siemens Gamesa has imported Accused Products in connection with these contracts—as recently as July 24, 2020 based on Panjiva import data—in violation of Section 337.

51. In March 2019, Tucson Electric Power ("TEP") entered into a contract with EDF for a build transfer agreement in New Mexico for a project referred to as "Oso Grande."

Ex. 18 at 16 (TEP 2019 preliminary integrated resource plan). On April 25, 2019, Siemens Gamesa announced that it was selected by EDF to supply wind turbines for the Oso Grande project, including forty-eight (48) SG 4.5-145 wind turbines and thirteen (13) SWT-2.3-108 wind turbines. Ex. 20 (SGRE April 25 press release). Commissioning of the Oso Grande wind farm is scheduled for the last quarter of 2020. Ex. 20.

52. In the same press release, Siemens Gamesa announced that it was selected by EDF to supply wind turbines for a project named “Coyote” in Scurry County, Texas, including forty-eight (48) SG 4.5-145 wind turbines and eleven (11) SWT-2.3-108 wind turbines. Ex. 20. Completion of the Coyote project is “expected for the summer of 2020.” *Id.*

53. In a May 22, 2019 press release, Siemens Gamesa announced that it was selected by EDF to supply wind turbines for a third project—the Milligan wind project in Milligan County, Nebraska—including thirty (30) SG 4.5-145 wind turbines. Ex. 67 (SGRE May 22 press release). Completion of the Milligan project is “expected for the end of 2020.” *Id.*

54. On August 28, 2019, Siemens Gamesa announced that it was selected by MidAmerican Energy Company to supply wind turbines for the Southern Hills project in Iowa, including twenty-one (21) SG 4.5-145 wind turbines. Ex. 65. MidAmerican Energy projects that the Southern Hills wind farm will begin generating energy in 2020. Ex. 66.

55. On information and belief, Siemens Gamesa has imported components of the accused SWT-2.3 wind turbine generators in connection with the projects described above. On information and belief, components for SWT-2.3-108 wind turbine generators are manufactured by Respondent Siemens Gamesa Renewable Energy A/S in Denmark. Wind-turbine-models.com (“WTM”) is a searchable, online database of technical data for wind

turbine models, including for the SWT-2.3-108. Ex. 63. In addition to technical data, WTM identifies the manufacturer of different parts of the wind turbine. For the SWT-2.3-108, WTM identifies “Siemens” as the manufacturer of the generator, with the location of manufacture being Denmark. Ex. 64. Siemens Gamesa’s website confirms that it has a factory in Brande, Denmark (Ex. 23), which is also the location of the headquarters of Respondent Siemens Gamesa Renewable Energy A/S. Import records further confirm that Respondent Siemens Gamesa Renewable Energy Inc. has imported “PARTS FOR WINDTURBINES” from Respondent Siemens Gamesa Renewable Energy A/S from Denmark into the United States as recently as July 24, 2020. Ex. 26 (Panjiva import records). Therefore, on information and belief, Siemens Gamesa has imported components for the accused SWT-2.3 wind turbine generators in violation of Section 337.

56. On information and belief, Siemens Gamesa has also imported components of the accused SG 4.5 wind turbine generators in connection with the projects described above. On information and belief, components for SG 4.5 wind turbine generators are manufactured by Respondent Gamesa Electric, S.A.U. in Spain. Respondent Gamesa Electric, S.A.U. manufactures a “DFIG 4.5 MW Wind Generator” and a “DFIG 4.5 MW Wind Converter,” which are both identified for use with “SG 4.X” wind turbines. Ex. 68; Ex. 69. Both product webpages include a link to Siemens Gamesa’s wind turbine products catalog. Exs. 68; Ex. 69. Respondent Gamesa Electric, S.A.U. has production centers for “Generators & Motors” and “Wind Converters & Controls” located in Spain. Ex. 71 at 3; Ex. 72; Ex. 73. Import records confirm that Respondent Siemens Gamesa Renewable Energy Inc. has imported “GENERATORS” and “COMPONENTS FOR THE MANUFACTURE AND ASSEMBLY OF WIND TURBINE” from Respondent Gamesa Electric, S.A.U. from Spain

into the United States as recently as July 19, 2020. Ex. 26 (Panjiva import records). Therefore, on information and belief, Siemens Gamesa has imported components for the accused SG 4.5 wind turbine generators in violation of Section 337.

57. As explained above, on information and belief: i) Siemens Gamesa has contracted for the sale of SWT 2.3-108 wind turbines and SG 4.5-145 wind turbines to EDF and MidAmerican Energy Company; ii) the SWT-2.3-108 and SG 4.5-145 wind turbine generators are Accused Products that directly infringe Complainant's asserted patents when commissioned and when put online; and iii) Siemens Gamesa has imported at least some components for the SWT-2.3-108 and SG 4.5-145 wind turbine generators in connection with the above projects. Accordingly, Siemens Gamesa has imported the Accused Products in violation of Section 337.

VIII. CLASSIFICATION OF THE INFRINGING PRODUCTS UNDER THE HARMONIZED TARIFF SCHEDULE

58. On information and belief, the Accused Products may be classified under at least one of the following headings of the Harmonized Tariff Schedule of the United States: 8501.34.60; 8501.64.00; 8502.31.00; 8504.00.20; 8503.00.95; 8504.40.95; 9031.10.00; and/or 9031.80.80. These classifications are not intended to restrict the scope of any exclusion order or other remedy ordered by the Commission.

IX. THE DOMESTIC INDUSTRY RELATING TO THE ASSERTED PATENTS

59. An industry as required by Section 337(a)(2) and defined by Section 337(a)(3) exists in the United States relating to the '985 patent.

60. GE notes that its investments in its wind turbine products and technology have been previously found to constitute a domestic industry under Section 337 as to the '985

patent. In *Variable Speed Wind Turbines*, the presiding ALJ, on summary determination, found that GE satisfied the economic prong of the domestic industry requirement as to the '985 patent. *Variable Speed Wind Turbines*, Initial Determination, Order No. 30 (April 2009). The Commission did not review the ALJ's finding as to the economic prong of the domestic industry. *Variable Speed Wind Turbines*, Comm'n Op. at 3–4, 2010 WL 741200, at *2 (March 2010). The U.S. Court of Appeals for the Federal Circuit found that GE's domestic industry wind turbines practiced claim 15 of the '985 patent. *GE v. ITC*, 685 F.3d 1034, 1037 (Fed. Cir. 2012).

61. Since the 641 investigation, GE has continued its domestic investments as to the '985 patent, as well as to the '705 patent, including significant investments in plant and equipment, significant employment of labor and capital, and substantial investments in the exploitation of the '985 and '705 patents through engineering, research and development.

62. These investments have continued to allow GE to develop, manufacture, test and install its 1 MW platforms—the products giving rise to domestic industry in the 641 investigation—and its 2 MW platforms, which also practice the '985 patent. The 1 MW and 2 MW platforms also practice the '705 patent. Further, the sales of these products since 2017 constitute approximately [REDACTED] of GE's domestic wind turbine business. *See* Ex. 36C ¶ 7 (chart showing revenues). The 1 MW and 2 MW platforms are collectively referred to below as the “Domestic Wind Turbine Products.”

63. In addition, GE's domestic investments have allowed it to operate its repower program, which extends the life of its Domestic Wind Turbine Products. For these products, the repower program can include increasing a turbine's rotor size, upgrades to the gearbox, hub, main shaft, and main bearing assembly. These products continue to practice the '985 and '705 patents,

with the repower program extending product life by a decade or more. The repower business since 2017 constitutes approximately [REDACTED] of GE's domestic wind turbine business. *See* Ex. 36C ¶ 7 (chart showing revenues).

64. GE's investments in the Domestic Wind Turbine Products have been significant and substantial in that they have allowed GE to operate its sales and repower businesses, which constitute approximately [REDACTED] of GE domestic wind turbine business and led to revenues of [REDACTED] since 2017. GE's continued investments once again establish a domestic industry with respect to the '985 and '705 patents.

A. Technical Prong

65. GE's 1 MW and 2 MW platforms practice at least claims 1, 6, 15 and 29 of the '985 patent and claim 1 of the '705 patent. Representative claim charts demonstrating that the 1 MW and 2 MW platforms practice independent claims 1, 6, 15 and 29 of the '985 patent are attached as Confidential Exhibits 37 and 38. Representative claim charts demonstrating that the 1 MW and 2 MW platforms practice independent claim 1 of the '705 patent are attached as Confidential Exhibits 39 and 40. The underlying documents used in these claim charts are attached as Confidential Exhibits 42C–50C, 53–55C, and 58C as well as Exhibits 51–52 and 56–57.

B. Economic Prong

1. Significant Investment in Plant and Equipment

66. A domestic industry exists in the United States by virtue of the significant investments in plant and equipment made by GE. These investments are related to developing, manufacturing, assembling, testing, and installing the 1 MW and 2 MW platform products. They also are related to the repower program that refurbishes these products.

67. More specifically, GE's investments include domestic facilities involved in the assembly of nacelles, generators, gearboxes and hubs, as well as the manufacture of blades and towers for the Domestic Wind Turbine Products. For example, GE operates an approximately 300,000 sq. ft. facility in Pensacola, Florida where components of its 1 MW and 2 MW wind turbines—including the nacelle, generator, gearbox, and hub—are assembled. Ex. 36C ¶ 9. GE also makes substantial payments to third party contractors for the domestic manufacture of components of GE's 1 MW and 2 MW wind turbines. For example, GE works with [REDACTED] [REDACTED] to manufacture blades on behalf of GE. Ex. 36C ¶ 10. GE has also made over [REDACTED] in payments to domestic manufacturers of the towers used in GE's 1 MW and 2 MW wind turbines since 2017. Ex. 36C ¶ 11. GE has also invested in equipment to perform these activities, as well as equipment used in the installation and testing of these products.

68. The expenditures on plant and equipment are detailed in the accompanying Confidential Declaration of Ryan Legg, Exhibit 36C ¶¶ 9–14.

2. Significant Employment of Labor and Capital

69. GE employs significant employment of labor and capital in the United States in connection with its Domestic Wind Turbine Products. For example, GE employs approximately [REDACTED] employees that are involved in the assembly of these products at GE assembly facility in Pensacola, Florida. Ex. 36C ¶ 15.

70. The expenditures on labor and capital are detailed in the accompanying Confidential Declaration of Ryan Legg, Exhibit 36C ¶¶ 15–16.

3. Substantial Investment in Exploitation Through Engineering and Research & Development

71. GE has made substantial investments in the United States relating to research, development, design, engineering, and testing of the Domestic Wind Turbine Products. These investments have been made in the United States and have led to the improved efficiency, reliability and reduced the costs of energy production for these products. For example, GE maintains engineering offices in Greenville, SC; Salem, VA; Albany, NY; and Schenectady, NY to perform research and development and project management for GE's 1 MW and 2 MW platforms. Ex. 36C ¶ 18. GE also has a facility in Lubbock, TX where turbine prototypes are tested. *Id.* To support the research and development, testing, and engineering activities at these facilities, GE employs approximately [REDACTED] full time employees.

72. The expenditures on GE's research, development and engineering expenses are detailed in the accompanying Confidential Declaration of Ryan Legg 36C ¶¶ 17–22.

X. RELATED LITIGATION AND PATENT OFFICE PROCEEDINGS

A. The '985 Patent

73. On February 27, 2008, GE brought a complaint before the Commission that resulted in the institution of an investigation entitled *Certain Variable Speed Wind Turbines and Components Thereof*, Inv. No. 337-TA-641, to determine whether, inter alia, Mitsubishi Heavy Industries, Ltd. and Mitsubishi Power Systems, Inc. (collectively, "Mitsubishi") violated Section 337 by reason of infringement of the '985 patent as well as U.S. Patent No. 5,083,039 and U.S. Patent No. 7,321,221. With respect to the '985 patent, the administrative law judge ("ALJ") issued a final initial determination finding a violation of section 337 because Mitsubishi infringed claim 15 of the '985 patent, the '985 patent was not invalid by

reason of anticipation, obviousness, enablement or written description, and GE satisfied the domestic industry requirement. The Commission reversed the ALJ's finding of a violation of section 337, finding that GE did not practice claim 15 of the '985 patent, and therefore, failed to satisfy the domestic industry requirement. On July 6, 2012, the Federal Circuit reversed the Commission determination that GE did not practice claim 15 of the '985 patent, and remanded for further proceedings with respect to the '985 patent. On January 15, 2014, GE and Mitsubishi filed a joint motion to terminate the investigation on the basis of a settlement agreement. The motion to terminate was granted on April 24, 2014.

74. On October 22, 2012, Mitsubishi filed a request for *inter partes* reexamination (Control No. 95/000,580) of claims 1–45 of the '985 patent. On January 8, 2016, a reexamination certificate issued stating that (i) the patentability of claims 15–20, 22, 24, 29–32 and 39 is confirmed; (ii) claims 2, 4 and 5 are canceled; (iii) claims 1, 3, 6, 21, 23, 25, 27, 33, 35, 37, 40, 42, and 44 are patentable as amended; (iv) claims 7–14, 26, 28, 34, 36, 41, 43 and 45, dependent on an amended claim, are determined to be patentable; and (v) new claims 46–69 are added and determined to be patentable.

75. On April 15, 2010, GE filed an action in the United States District Court for the Eastern District of California seeking a declaratory judgment that Thomas Wilkins was not an inventor of the '985 patent. *GE v. Wilkins*, Case No. 10-0674 (E.D. Cal.). The District Court concluded that Wilkins did not carry his burden to prove inventorship by clear and convincing evidence. The Federal Circuit affirmed the District Court decision on May 8, 2014. *GE v. Wilkins*, 750 F.3d 1324 (Fed. Cir. 2014).

76. On October 2, 2017, GE filed a first amended complaint against Vestas Wind Systems A/S and Vestas-American Wind Technology, Inc. in the United States District Court

for the Central District of California (“CDCA District Court”), alleging infringement of the ’985 patent and the ’705 patent. On December 15, 2017, Vestas asserted counterclaims of infringement of U.S. Patent No. 7,102,247 (“the ’247 Patent”) and U.S. Patent No. 7,859,125 (“the ’125 Patent”). GE filed two *inter partes* review petitions on the ’125 Patent and one IPR petition on the ’247 Patent in April 2018. Vestas subsequently filed one IPR petition on the ’985 patent (IPR2018-01029) and one IPR petition on the ’705 patent in May 2018 (IPR2018-01015), and filed a second IPR petition on the ’985 patent (IPR2018-01563) in August 2018. On June 7, 2018, the CDCA District Court ordered a stay of the entire case pending the Patent Trial and Appeal Board’s (“PTAB”) issuance of decisions whether to institute the IPR’s on GE’s asserted patents and Vestas’ asserted patents. The parties filed status reports with CDCA District Court on September 21, 2018, December 20, 2018, March 8, 2019, March 21, 2019, and June 18, 2019. On June 25, 2019, Vestas and GE jointly dismissed all claims with prejudice on the basis of a settlement agreement.

77. On October 19, 2018, the PTAB issued a decision denying institution of IPR2018-01029 in which Vestas had challenged claims 1, 3, 6–8, 12, 14, 29, 30, 32–45, and 64 of the ’985 patent. Vestas filed a request for rehearing and expanded panel consideration on November 16, 2018. The request for rehearing and expanded panel was denied by the PTAB on December 17, 2018.

78. On February 26, 2019, the PTAB issued a decision granting institution of IPR2018-01563, in which Vestas challenged claims 9–11, 15–18, 20–28, 46–63, and 65–69 of the ’985 patent. GE filed a request for rehearing on March 12, 2019, as to the Board’s decision to institute an IPR proceeding, which the PTAB denied on April 11, 2019. On June

25, 2019, Vestas and GE filed a joint motion to terminate proceedings on the basis of a settlement agreement. On July 1, 2019, the PTAB terminated the proceedings.

79. Thus, as relevant to the current Complaint, the Board did not institute IPR proceedings against asserted claims 1, 3, 6, 7, 12, 29, 30 and 33–38 of the '985 patent.

B. The '705 Patent

80. On February 11, 2010, GE filed a complaint against Mitsubishi Heavy Industries, Ltd., Mitsubishi Heavy Industries America, Inc., and Mitsubishi Power Systems Americas, Inc. in the United States District Court for the Northern District of Texas ("NDTX District Court"), alleging infringement of the '705 patent and U.S. Patent No. 6,879,055. Mitsubishi raised an affirmative defense of, *inter alia*, inequitable conduct by GE. On October 19, 2011, the trial was bifurcated, with all issues other than inequitable conduct to be tried first before a jury, and Mitsubishi's inequitable conduct defenses to be tried second before the judge. On March 8, 2012, a jury found that the '705 patent was not invalid by reason of anticipation, enablement, or written description and that Mitsubishi had directly infringed the '705 patent. On May 28, 2013, the court issued a judgment in favor of GE on the issue of inequitable conduct. Mitsubishi filed an appeal to the Federal Circuit on June 26, 2013. On January 7, 2014, Mitsubishi moved to voluntarily dismiss its appeal, and on January 8, 2014, the appeal was terminated.

81. On May 24, 2011, Mitsubishi filed a request for *inter partes* reexamination (Control No. 95/000,633) of claims 1–9, 13, and 14 of the '705 patent. On August 17, 2016, a reexamination certificate issued stating that (i) claims 9, 13, and 14 are cancelled; (ii) claim 7 is patentable as amended; and (iii) claim 8, dependent on an amended claim, is determined to be patentable. Claims 1–6, 10–12, and 15–17 were not reexamined.

82. On September 14, 2012, Mitsubishi filed a request for *ex parte* reexamination (Control No. 90/012,587) of claim 1 of the '705 patent. On July 12, 2013, a reexamination certificate issued stating that the patentability of claim 1 is confirmed. Claims 2–17 were not reexamined.

83. On May 24, 2013, Mitsubishi filed a request for *ex parte* reexamination (Control No. 90/012,880) of claim 1 of the '705 patent. On April 24, 2014, a reexamination certificate issued stating that the patentability of claim 1 is confirmed. Claims 2–17 were not reexamined.

84. On July 31, 2017, GE filed a complaint against Vestas Wind Systems A/S and Vestas-American Wind Technology, Inc. in CDCA District Court, alleging infringement of the '705 patent. On October 2, 2017, GE filed a first amended complaint, adding an allegation of infringement of the '985 patent. On June 25, 2019, Vestas and GE jointly dismissed all claims with prejudice on the basis of a settlement agreement.

85. On May 2, 2018, Vestas-American Wind Technology, Inc. and Vestas Wind Systems A/S (“Vestas”) filed a petition for *inter partes* review (IPR2018-01015) of claims 1-8, 10–12, and 15–17 of the '705 patent. On November 14, 2018, the PTAB issued a decision granting institution. On June 25, 2019, Vestas and GE filed a joint motion to terminate the proceedings on the basis of a settlement agreement. On July 1, 2019, the PTAB terminated the proceedings.

C. [REDACTED]

86. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

87. [REDACTED]

88. [REDACTED]

⁴ See *supra* Section V.A.3 (Licensees Under the '985 patent).

[REDACTED]

[REDACTED]

89. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

90. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

91. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

92. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

XI. RELIEF REQUESTED

93. Complainant respectfully request that the Commission:

(a) Institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to the proposed Respondents' violations of that section arising from the importation into the United States, sale for importation, and/or the sale within the United States after importation of certain variable speed wind turbine generators and components thereof that infringe the '985 and '705 patents;

(b) Schedule and conduct a hearing pursuant to Section 337(c) for the purposes of (i) receiving evidence and hearing argument concerning whether there has been a violation of Section 337, and (ii) following the hearing, determine that there has been a violation of Section 337;

(c) Issue a permanent limited exclusion order directed to products manufactured by or for the proposed Respondents, its subsidiaries, related companies and agents pursuant to 19 U.S.C. § 1337(d) excluding entry into the United States of certain variable speed wind turbine generators and components that infringe one or more claims of the '985 patent or '705 patent;

(d) Issue a permanent cease and desist order pursuant to 19 U.S.C. § 1337(f) prohibiting the proposed Respondents, its subsidiaries, related companies and agents from conducting any of the following activities in the United States: importing, selling, marketing, advertising, distributing, offering for sale, transferring (except for

exportation), soliciting United States agents or distributors, or aiding and abetting other entities in the importation, sale for importation, sale after importation, marketing, advertising, transfer (except for exportation), or distribution of certain variable speed wind turbine generators and components thereof that infringe one or more claims of the '985 patent or '705 patent;

(e) Impose a bond upon importation of certain variable speed wind turbine generators and components that infringe one or more claims of the '985 patent or '705 patent sufficient to protect Complainant from any injury during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j); and

(f) Issue such other and further relief as the Commission deems just and proper under the law, based on the facts determined by the investigation and the authority of the Commission.

Dated: July 31, 2020

Respectfully Submitted,



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VERIFICATION OF COMPLAINT

I, Ryan Legg, in accordance with 19 C.F.R. §§ 210.4 and 210.12(a) declare as follows:

1. I am Director of Technology Partnerships at General Electric Company, and I am duly authorized by General Electric Corporation to verify the foregoing Complaint.
2. I have read the Complaint and am aware of its contents.
3. To the best of my knowledge, information, and belief, formed after a reasonably inquiry, the Complaint is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of the investigation or related proceedings.
4. To the best of my knowledge, information, and belief, formed after a reasonably inquiry, the claims and other legal contentions in the Complaint are warranted by existing law or by a nonfrivolous argument for the extension, modification, or reversal of existing law or the establishment of new law.
5. To the best of my knowledge, information, and belief, formed after a reasonably inquiry, the allegations and other factual contentions in the Complaint have evidentiary support or, if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on July 29, 2020



Ryan Legg
Director of Technology Partnerships
General Electric Corporation