UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA
U.S. Department of Justice
Antitrust Division
450 Fifth Street, NW, Suite 8700
Washington, DC 20530,

Plaintiff,

v.

GENERAL ELECTRIC COMPANY
3135 Easton Turnpike
Fairfield, Connecticut 06828,

ALSTOM S.A.
3, Avenue André Malraux
92309 Levallois-Perret Cedex
France,

and

POWER SYSTEMS MFG., LLC
1440 West Indiantown Road
Jupiter, Florida 33458,

Defendants.

CASE NO.

COMPLAINT

The United States of America ("United States"), acting under the direction of the Attorney General of the United States, brings this civil antitrust action to enjoin the proposed

acquisition of Alstom S.A. and Power Systems Mfg., LLC ("PSM") by General Electric Company ("GE") and to obtain other equitable relief. The United States alleges as follows:

I. NATURE OF THE ACTION

1. GE proposes to acquire PSM, a Florida-based wholly owned subsidiary of Alstom. GE is a leading producer of large gas turbines used in the United States for the production of electricity. GE and PSM are the two leading providers of aftermarket parts and service for the most common gas turbine model used for power generation in the United States, the GE 7FA, which represents nearly 70 percent of the GE installed base of gas turbines.

2. The proposed acquisition would eliminate head-to-head competition between GE and PSM. For a significant number of customers, typically power generation companies, GE and PSM are by far the two best sources of aftermarket parts and service for GE 7FA gas turbines, with a combined market share of approximately 92 percent. The proposed acquisition likely would give GE the ability to raise prices or decrease the quality of service provided to these customers. In addition, the proposed acquisition would eliminate PSM as a vigorous product innovator for the GE installed base and likely would reduce GE's incentive to innovate in response to PSM. As a result, the proposed acquisition likely would substantially lessen competition in the development, manufacture, and sale of gas turbine aftermarket parts and service in the United States, in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

II. THE DEFENDANTS AND THE TRANSACTION

3. Defendant General Electric Company is a New York corporation with its principal offices in Fairfield, Connecticut. GE is a global manufacturing, technology and services company. GE's subsidiary, GE Power and Water, provides power generation, energy

delivery, and water process technologies in a number of areas of the energy industry, including wind and solar, biogas and alternative fuels, and coal, oil, natural gas, and nuclear energy. GE offers a wide spectrum of heavy-duty gas turbines. GE also is the dominant supplier of aftermarket parts and service for GE gas turbines. In 2014, GE's worldwide revenues were $148.6 billion, and its U.S. revenues from aftermarket parts and service for GE 7FA gas turbines were approximately $730 million.

4. Defendant Power Systems Mfg., LLC, a Delaware corporation headquartered in Jupiter, Florida, is a wholly owned subsidiary of Alstom, a French corporation headquartered in Levallois-Perret, France. Alstom offers global power generation, electric grid, and rail solution products and services. PSM provides aftermarket parts and service for a variety of engines manufactured by other companies and for GE gas turbine engines, including the GE 7FA model. In 2014, PSM's worldwide revenues were approximately $226 million, and its U.S. revenues for aftermarket parts and service for GE 7FA gas turbines were approximately $90 million.

5. Pursuant to a set of agreements dated November 4, 2014, GE intends to enter a multi-stage transaction with Alstom. First, GE will purchase Alstom's thermal and renewable power and grid business. Then, Alstom will acquire GE's rail signaling business. Finally, GE and Alstom will enter three joint ventures, each 51 percent owned by GE, involving the renewable energy businesses, the grid, and a global nuclear and French steam turbine business, in which the French government subsequently will obtain preferred shares and governance rights. GE will maintain complete ownership of the thermal power business, including PSM, acquired from Alstom. The value of the multi-stage transaction is approximately $13.8 billion.

III. JURISDICTION AND VENUE

6. The United States brings this action pursuant to Section 15 of the Clayton Act, as amended, 15 U.S.C. § 25, to prevent and restrain defendants from violating Section 7 of the Clayton Action, 15 U.S.C. § 18.

7. Defendants GE and PSM develop, manufacture, and sell aftermarket parts and service for GE 7FA gas turbines in the flow of interstate commerce. Defendants' activities in the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines substantially affect interstate commerce. The Court has subject-matter jurisdiction over this action pursuant to Section 15 of the Clayton Act, 15 U.S.C. § 25, and 28 U.S.C. §§ 1331, 1337(a), and 1345.

8. Defendants have consented to venue and personal jurisdiction in the District of Columbia. Venue is therefore proper in this District under Section 12 of the Clayton Act, 15 U.S.C. § 22, and 28 U.S.C. § 1391(c).

IV. TRADE AND COMMERCE

A. Industry Background

9. Gas turbines are a type of internal combustion engine in which burning of an air-fuel mixture produces hot gases that spin a turbine to produce power. Gas turbines have been used to generate electricity since the 1930s. Today, gas turbines are widely used for power generation throughout the United States.

10. The key internal working parts of a gas turbine engine are the rotor, the buckets (also known as blades), and the nozzles (also known as vanes). The rotor is the main rotating component of the turbine. The buckets and nozzles are located in the combustion chamber and

for the GE 7FA are configured in three stages. Stage one parts are the most difficult to design and manufacture, due to required heat tolerances, and are the most costly. The combustion chamber of the turbine is super-heated during its operation and the bucket and nozzle parts must be cooled to prevent melting the alloy materials that comprise the chamber. A full set of replacement parts typically can range in price from several million dollars up to $15 million.

11. Gas turbines may be classified as mature or non-mature. Maturity relates to whether the gas turbine has been in operation long enough for aftermarket firms to reverse engineer and manufacture formerly proprietary replacement parts. Generally, a turbine is considered mature within 10 to 15 years after it is introduced into the market or installed. Mature turbines, like other mechanical equipment, require servicing and new or refurbished replacement parts.

12. GE 7FA gas turbines have life spans of approximately 30 years. Service is needed every three to eight years, with major overhauls required every 10 to 16 years. Gas turbine aftermarket parts and service can be provided by the original equipment manufacturer ("OEM") that manufactured the original equipment or by an independent service provider. With the initial sale of the gas turbine, the OEM and the customer usually enter into a long-term service agreement ("LTSA"), which may range from five to 15 years in duration. LTSAs, which are typically based on total hours of operation, cover the provision of replacement parts and service after the installation of the turbine. If a customer enters into a LTSA with the OEM, typically an independent service provider is unable to compete for the replacement parts or service business of that customer for the length of that LTSA. Independent service providers

may compete for a customer's replacement parts and service business only upon the expiration of the LTSA. The OEM, however, often seeks to enter another LTSA when the first LTSA expires.

13. Some independent service providers offer only aftermarket service or a limited range of aftermarket parts. Generally, more firms provide older parts or basic services; fewer are able to provide parts or services that satisfy the heat tolerances of the first stage of the hot gas portion of the gas turbine. GE's 7FA gas turbine was first installed in 1990 and remains the most common and one of the most technologically advanced GE models installed today. Only a limited number of firms have the capability and experience to reverse engineer, manufacture, and improve the formerly proprietary parts.

14. Currently, GE's U.S. installed base numbers more than 1220 machines and comprises approximately 68 percent of all gas turbines in service in the power generation industry (generally, large gas turbines over 90 megawatts). Of this installed base, GE 7FAs represent 54 percent.

B. The Relevant Product Market

15. Gas turbine aftermarket parts and service are distinct for each brand and model. A rotor for a non-GE machine could not be used on a GE 7FA, and a nozzle for a GE 7FA engine likely could not be used on another GE model machine. Moreover, other types of parts and service cannot be substituted for GE 7FA aftermarket parts and service. For instance, aftermarket parts and service for steam or wind turbines cannot be used for GE 7FA gas turbines.

16. A small but significant increase in the price of aftermarket parts and service for GE 7FA gas turbines would not cause customers of those parts and service to substitute a different kind of aftermarket part or service, or to reduce purchases of aftermarket parts or

service for GE 7FA gas turbines, in volumes sufficient to make such a price increase unprofitable. Accordingly, the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines is a line of commerce and relevant market within the meaning of Section 7 of the Clayton Act.

C. The Relevant Geographic Market

17. Although aftermarket parts for GE 7FA gas turbines may be manufactured outside of the United States, suppliers of aftermarket parts for GE 7FA gas turbines typically deliver them to their customer's locations in the United States.

18. Most U.S. customers of aftermarket parts and service for GE 7FA gas turbines consider only those qualified suppliers with a strong national presence and local support, including regional parts distribution centers. U.S. customers insist on facilities located in the United States for timely delivery of parts and prompt deployment of personnel.

19. A small but significant increase in the price of aftermarket parts and service for GE 7FA gas turbines in the United States would not cause a sufficient number of U.S. customers to turn to providers of those parts and service that do not have a substantial presence in the United States so as to make such a price increase unprofitable. Accordingly, the United States is a relevant geographic market within the meaning of Section 7 of the Clayton Act.

D. Anticompetitive Effects of the Proposed Acquisition

20. GE's acquisition of PSM would eliminate competition between GE and PSM for aftermarket parts and service for GE 7FA gas turbines in the United States. The competition between GE and PSM in the development, manufacture, and sale of aftermarket parts and service

for GE 7FA gas turbines in the United States has benefitted customers. GE and PSM compete directly on price, innovation, and quality of service.

21. Only three competitors, including GE and PSM, develop, manufacture, and sell aftermarket parts to offer with their service for GE 7FA gas turbines in the United States. GE and PSM have market shares of 83 and nine percent respectively. A third firm, which manufactures some aftermarket parts, has a market share of two percent. The remaining fringe participants in aftermarket service in the United States do not manufacture their own parts and must provide either refurbished parts or parts made by PSM or the third firm because GE does not make parts available to third-party service providers.

22. Customers with an expiring GE LTSA who want a provider of new aftermarket parts other than GE have two options, PSM or the third firm. Accordingly, the acquisition would reduce the number of competitors for the development, manufacture, and sale of aftermarket parts and service for GE 7FAs from three to two.

23. The third firm does not provide a complete line of 7FA aftermarket parts. In addition, the third firm does not meet the supplier qualification standards of some customers. For a customer trying to purchase a 7FA part not sold by the third firm or who has qualification standards not met by the third firm, the acquisition would reduce the number of suppliers for the development, manufacture, and sale of aftermarket parts and service for GE 7FAs to only one.

24. The response of the third firm and the fringe participants in aftermarket service would not be sufficient to constrain a unilateral exercise of market power by GE after the acquisition. The effect of PSM's entry on prices shows the impact of its presence in the market. Since 1998, when PSM began competing with GE to provide aftermarket parts and service for

GE 7FA gas turbines, prices of GE 7FA replacement parts dropped by 60 to 70 percent. Further, gas turbine life-cycle costs (prices for GE LTSAs and renewed GE LTSAs) dropped by as much as 50 percent when PSM began to offer replacement parts for the GE 7FA gas turbines. Although other firms, including the third firm, since have entered the market with some aftermarket parts and services offerings, no firm, or combination of firms, is positioned to constrain a unilateral exercise of market power by GE after the acquisition.

25. A merged GE and PSM also likely would reduce innovation in the development of improved aftermarket parts for GE gas turbines. PSM has led innovation for aftermarket parts for GE 7FA turbines. Some of the aftermarket parts developed by PSM for GE turbines are superior in performance to GE parts.

26. As articulated in the *Horizontal Merger Guidelines* issued by the Department of Justice and the Federal Trade Commission, the Herfindahl-Hirschman Index ("HHI"), discussed in Appendix A, is a measure of market concentration. Market concentration is often a useful indicator of the level of competitive vigor in a market and the likely competitive effects of a merger. The more concentrated a market, the more likely it is that a transaction would result in a meaningful reduction in competition, harming consumers.

27. In the U.S. market for the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines, the pre-merger HHI is 6,994; the post-merger HHI is 8,448, with an increase in the HHI of 1,494. Consistent with the *Horizontal Merger Guidelines*, this market is highly concentrated and would become significantly more concentrated as a result of the proposed acquisition.

28. The proposed transaction, therefore, likely would substantially lessen competition in the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States and lead to higher prices and decreased innovation and quality of service in violation of Section 7 of the Clayton Act.

E. Difficulty of Entry

29. Entry of additional competitors into the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States is unlikely to be timely or sufficient to prevent the harm to competition caused by the elimination of PSM as a supplier of aftermarket products and service for the GE 7FA gas turbine.

30. Firms attempting to enter into the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines face substantial entry barriers in terms of cost and time. While many of the patents have expired on older GE 7FA models, a competitor must have the capability to produce the most complex replacement parts.

31. First, entrants must have the technical capabilities necessary to design and manufacture the parts. Specific, unique buckets and nozzles are cast, and highly customized coatings are required to protect these metal alloy parts from melting in the combustion chamber. The required capabilities include design expertise, metals casting technology, and metals coating technology.

32. Second, customers of aftermarket parts or service that involve a shutdown of the gas turbine ("outage") often require the provider to have a comprehensive list of parts, expertise with the specific gas turbine model and parts or service, and a superior record and reputation with customers. Such shutdowns involve significant expense and effort, so customers minimize

the risk of extended or additional outages. Customers often take advantage of planned service outages to invite potential suppliers to obtain measurements and conduct inspections required for bids for the next round of planned aftermarket parts and service. Obtaining each of the qualifications required for aftermarket parts or service that involves outages is a significant challenge for a new entrant.

33. As a result of these barriers, entry into the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States would not be timely, likely, or sufficient to defeat the substantial lessening of competition that likely would result from GE's acquisition of PSM.

V. VIOLATION ALLEGED

34. The acquisition of PSM by GE likely would substantially lessen competition for the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18.

35. Unless enjoined, the transaction likely would have the following anticompetitive effects, among others:

a. actual and potential competition between GE and PSM in the market for the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States would be eliminated;

b. competition generally in the market for the development, manufacture, and sale of aftermarket parts and service for GE 7FA gas turbines in the United States would be substantially lessened;

c. prices for aftermarket parts and service for GE 7FA gas turbines in the United States likely would be less favorable, and innovation and quality of service relating to aftermarket parts and service for GE 7FA gas turbines in the United States likely would decline.

VI. REQUESTED RELIEF

36. The United States requests that this Court:

a. adjudge and decree GE's proposed acquisition of PSM to be unlawful and in violation of Section 7 of the Clayton Act, 15 U.S.C. § 18;

b. preliminarily and permanently enjoin and restrain defendants and all persons acting on their behalf from consummating the proposed acquisition of PSM by GE or from entering into or carrying out any contract, agreement, plan, or understanding, the effect of which would be to combine PSM with the operations of GE;

c. award the United States its costs of this action; and

d. award the United States such other and further relief as the Court deems just and proper.

Respectfully submitted,

FOR PLAINTIFF UNITED STATES OF AMERICA

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Dated: September 8, 2015

APPENDIX A
DEFINITION OF HHI

The term "HHI" means the Herfindahl-Hirschman Index, a commonly accepted measure of market concentration. The HHI is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30, 30, 20, and 20 percent, the HHI is 2,600 ($30^2 + 30^2 + 20^2 + 20^2 = 2{,}600$). The HHI takes into account the relative size distribution of the firms in a market. It approaches zero when a market is occupied by a large number of firms of relatively equal size and reaches a maximum of 10,000 points when it is controlled by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

Markets in which the HHI is between 1,500 and 2,500 points are considered to be moderately concentrated and markets in which the HHI is in excess of 2,500 points are considered to be highly concentrated. *See Horizontal Merger Guidelines* § 5.3 (issued by the U.S. Department of Justice and the Federal Trade Commission on August 19, 2010). Transactions that increase the HHI by more than 200 points in highly concentrated markets will be presumed likely to enhance market power. *Id.*