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***Case No COMP/M.7284 - SIEMENS/ JOHN WOOD
GROUP / ROLLS-ROYCE COMBINED ADGT BUSINESS/
RWG***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION

Date: 04/08/2014

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EUROPEAN COMMISSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

Brussels, 4.8.2014
C(2014) 5660 final

PUBLIC VERSION

MERGER PROCEDURE

To the notifying party

Dear Sir/Madam,

**Subject: Case M. 7284 - Siemens AG/ John Wood Group/ Rolls-Royce Combined ADGT Business/RWG
Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004¹**

- (1) On 27 June 2014, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Siemens AG ("Siemens", of Germany) acquires within the meaning of Article 3(1)(b) of the Merger Regulation (i) sole control of parts of Rolls-Royce plc ("Rolls-Royce", UK), namely Rolls-Royce's Aero-derivative Gas Turbines Business, Rolls-Royce's compressor activities and Rolls-Royce's Aftermarket Services Business (together "Rolls-Royce Combined ADGT Business"); and (ii) Rolls-Royce's 50% stake in (and thereby joint control over) Rolls Wood Group Limited ("RWG"), currently a joint-venture between Rolls-Royce and John Wood Group plc ("WG", UK), by way of purchase of shares and purchase of assets.² (Siemens, Rolls-Royce plc, Rolls Wood Group Ltd and John Wood Group plc are designated hereinafter as the 'Parties', the 'Notifying Parties' or the 'Parties to the proposed transaction'.)

¹ OJ L 24, 29.1.2004, p. 1 ('the Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this decision.

² Publication in the Official Journal of the European Union No C 213, 08.07.2014, p. 9-10.

1. THE PARTIES AND THE OPERATION

- (2) Siemens is a German stock corporation active in the following sectors: energy, healthcare, industry and infrastructure & cities. With regard to energy and as concerns this transaction, Siemens supplies industrial gas turbines, gas process compressors and provides gas turbine services.
- (3) Rolls-Royce ("RR") is a UK public limited company. RR is active within the following businesses: civil aerospace, defence aerospace, marine, energy and power systems. With regard to energy and as concerns this transaction, Rolls-Royce supplies aero-derivative gas turbines, gas process compressors and provides gas turbine services.
- (4) The Rolls-Royce Combined ADGT Business ("RR ADGT") comprises: (i) the Rolls-Royce ADGT Business, which includes the design, manufacture, sale and installation of aero-derivative gas turbines (ADGTs); (ii) Rolls-Royce's compressors activities, which include the design, manufacture, sale and installation of compressors sold by Rolls-Royce in conjunction with its aero-derivative gas turbines; and (iii) the Rolls-Royce's Services Business, which provides aftermarket services to operators and customers of installed aero-derivative gas turbines and compressors.
- (5) John Wood Group ("WG") is an international energy services company which provides a range of engineering, production support, maintenance management and industrial gas turbine overhaul and repair services to the oil and gas, and power generation industries worldwide. WG is listed on the London Stock Exchange.
- (6) Rolls Wood Group (Repair & Overhauls) Ltd ("RWG", UK) is a joint venture between RR and WG. It provides maintenance, repair and overhaul services to operators of Rolls-Royce aero-derivative gas turbines installed for industrial applications.

2. THE CONCENTRATION

- (7) By means of the proposed transaction, Siemens will acquire sole control over RR ADGT, Rolls-Royce's 50% stake in (and thereby joint control over) Rolls Wood Group, currently a joint-venture between Rolls-Royce and John Wood Group plc, through the purchase of shares and purchase of assets. All assets and shares covered by the relevant transaction will be carried out through a single transaction between the Parties, from the seller to the buyer. The Transaction therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

3. EU DIMENSION

- (8) The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 000 million³ (Siemens: EUR 75 882 million (2013); RR ADGT: EUR [...] (2013); WG: EUR 5 400 million (2013); RWG: EUR [...] (2013)).
- (9) Each of them has an EU-wide turnover in excess of EUR 250 million (Siemens: EUR [...] (2013); RR ADGT: EUR [...] (2013); WG: EUR [...] (2013); RWG: EUR

³ Turnover calculated in accordance with Article 5 of the Merger Regulation.

[...] (2013)), but they do not achieve more than two-thirds of their aggregate EU-wide turnover within one and the same Member State. The notified operation therefore has an EU dimension.

4. COMPETITIVE ASSESSMENT

- (10) The Parties' activities horizontally overlap within the fields of the supply of gas turbines, the supply of gas process turbo compressors and the servicing of gas turbines.
- (11) The activities within the supply of gas turbines will – depending on the exact product and geographic market definitions – give rise to affected markets at worldwide and EEA levels. The remaining horizontally overlapping activities within the supply of compressors do not give rise to any affected market. The activities of the Parties in the field of gas turbines servicing are minor.
- (12) The Commission also investigated possible conglomerate effects in relation to the sale of compressor sets of a certain power output for use in offshore oil and gas applications, and concluded to the absence of competitive concerns in this respect.

4.1. *Relevant product markets*

4.1.1. Gas Turbines

- (13) Following the Commission's decisional practice, the Parties submit that the market for gas turbines could be segmented as follows: by technology type (industrial or aero-derivative gas turbines), by power output (MW) and by sector specific usage of gas turbines (oil and gas ("O&G") or industrial power generation ("IPG")). However they claim that the exact product market definition can be left open as competition concerns are unlikely to arise under any product market definition.

4.1.1.1. Segmentation by technology type

- (14) The Parties submit that a segmentation according to technology type is relevant. Hence the Parties submit that Industrial Gas Turbines ("IGT") and Aero-derivative Gas Turbines ("ADGT") are part of two separate markets.
- (15) From a demand side perspective, the two types of technology are usually used in different applications. From a supply side perspective, the Parties claim that ADGT are substantially different from IGT in terms of technology and can only be produced by a supplier which either has its own aero-engine business or has access to another supplier's aero-engine technology and associated IP rights.
- (16) In previous decisions the Commission found indications that the product market could be segmented according to type of technology between industrial and aero-derivative gas turbines,⁴ because previous market investigations show that the unit size, fuel, environmental requirements and operating conditions attract different customer bases.⁵ The precise market definition was however left open.

⁴ COMP/M.2220 *General Electric/Honeywell* (2001) paras 463-465.

⁵ COMP/M.1484 *Alstom/ABB* (1999).

- (17) Even if almost no customer is aware of past instances where the price for ADGTs and IGTs has moved in clearly different ways⁶, the market investigation in the present case to a certain extent showed that the product markets could be segmented as per technology. The majority of customers consider IGT and ADGT not to be comparable to one another. Particularly, both the technological characteristics (ADGTs are typically lighter and smaller in size than the IGTs) and the price are perceived as non comparable.⁷ ADGTs are typically lighter and smaller in size than the IGTs. A number of competitors to the Parties share this view as well.⁸
- (18) Notwithstanding the above, the majority of respondents do think that ADGTs and IGTs are used interchangeably for certain applications, because of the substantial differences between the two.⁹ Customers in the O&G sector highlighted that, due to the different technical specifications of each technology, they often specify the type of technology required (IGT or ADGT), with ADGT often being the preferred one.¹⁰ Other segments outside O&G do not require a specific technology as often, but this depends on the relevant application.¹¹
- (19) Equally important, a clear majority of respondents states that it would be technically expensive and complex to install a gas turbine with other technical characteristics, and therefore they would not switch from using IGT or ADGT, if they initially chose the one over the other.¹² Customers stated that, in the event of a small but significant and non-transitory increase in price of their preferred gas turbine technology, while the other remained constant in terms of price, they would not change gas turbine technology.¹³

4.1.1.2. Segmentation according to power output

- (20) In previous decisions the Commission has considered a potential segmentation of the market according to power output of the turbines.¹⁴ The following segmentation has been considered as plausible, although the exact market definition was left open: (i) small gas turbines, with a power output below 15 MW; (ii) medium gas turbines, with a power output comprised between 15 and 60 MW; and, (iii) large gas turbines, with a power output of more than 60 MW.
- (21) The Parties take the view that the exact segmentation for gas turbines has developed somewhat since the European Commission last looked into this issue. Consequently the Parties argue that the more suitable demarcation line between small and medium gas turbines should be moved to 16 MW (instead of 15 MW) because the market has evolved. Gas turbines with power outputs below 15 MW have been upgraded over time and today outputs are slightly above 15 MW. Hence,

⁶ Questionnaire 1 for Customers, question 18.

⁷ Questionnaire 1 for Customers, questions 16 and 17.

⁸ Questionnaire 2 for Competitors, questions 12 and 13.

⁹ Questionnaire 1 for Customers, question 19, Questionnaire 2 for Competitors, question 14.

¹⁰ Questionnaire 1 for Customers, question 20.

¹¹ Questionnaire 1 for Customers, question 20.

¹² Questionnaire 1 for Customers, questions 21 and 22, Questionnaire 2 for Competitors, questions 16 and 17.

¹³ Questionnaire 1 for Customers, questions 21 and 22.

¹⁴ COMP/M.3148 *Siemens /Alstom* (2003), COMP/M.3113 *GE/Jenbacher* (2003), M.2220 *General Electric/ Honeywell* (2001), M.1623 *Allied Signal/ MTU* (1999).

the segmentation should reflect this change by including small gas turbines of up to 16 MW and medium gas turbines between 16 MW and 60 MW.

- (22) The market investigation in the present case showed the relevance of such segmentation. A clear majority of respondents thinks that the segmentation via power output as per small <15MW, medium 15- 60MW and large 60MW, is a relevant and appropriate segmentation. However, the exact demarcation line of the small gas turbines could as well be set at 16MW rather than 15MW as they regard turbines with a power output slightly above 15MW still as small size gas turbines.¹⁵
- (23) A small majority of customers states that small and medium gas turbines are not comparable in terms of product characteristics, but more similar if one stays within the same gas turbine technology (ADGT and ADGT, or IGT and IGT).¹⁶ Small and medium gas turbines are not considered as comparable in terms of price either.¹⁷ Additionally, most customers are not aware of the prices between small and medium gas turbines having in moved in clearly different directions in the past.¹⁸
- (24) Further, small and medium gas turbines may in general be used for similar end-applications, according to half of the customers.¹⁹ However, the exact turbine size/power output will be determined by the application necessary for a specific project.²⁰ Customers with a specific power requirement usually prefer to buy one single turbine that meets that specific requirement rather than several smaller turbines that in total meet that requirement or even turbines that exceed the requirement – except for cases where spare capacity or redundancy is needed.²¹
- (25) The majority of respondents to the market investigation claimed that small, medium and large gas turbines are used by different customers, for different applications having specific needs and they are not produced by the same suppliers.²² For instance power industries more often use larger IGTs, whereas the O&G segment mainly uses the small and medium ADGTs. If one was to segment the market even further, the smaller gas turbines are especially used in the O&G offshore platforms.²³ Wherever the larger gas turbines can be used the size and weight are not as crucial as the users for the small and medium gas turbines find.²⁴ Therefore, it is not surprising that almost no customers would switch from one power category to another due to its complexity, and most have no experience from

15 Questionnaire 1 for Customers, question 6, Questionnaire 2 for Competitors, question 6.

16 Questionnaire 1 for Customers, question 7.

17 Questionnaire 1 for Customers, question 8.

18 Questionnaire 1 for Customers, question 9.

19 Questionnaire 1 for Customers, question 10.

20 Questionnaire 1 for Customers, question 10.1 (Shell), Questionnaire 2 for Competitors, questions 7.1.1 and 7.2.1 (Caterpillar).

21 Questionnaire 1 for Customers, question 11, particularly Shell, Toshiba and Total.

22 Questionnaire 1 for Customers, questions 12.1, 12.2, and 12.3, Questionnaire 2 for Competitors, questions 7.1, 7.2 and 7.3.

23 Questionnaire 1 for Customers, questions 12.1, 12.2 and 12.3.

24 Questionnaire 1 for Customers, questions 12.1, 12.2 and 12.3, particularly Centrax Ltd, ExxonMobil, RWE AG, Shell, Toshiba and Vattenfall.

having do so in the past either.²⁵ Most of the competitors' answers reflect the complexity in switching power segment.²⁶

4.1.1.3. Segmentation by end-application

- (26) The Parties claim that the market could be further segmented according to end use of the turbines. Therefore turbines used in the oil & gas ("O&G") sector could be regarded as constituting a distinct product market from turbines used in the industrial power generation ("IPG") sector.
- (27) Further, the Parties claim that this segmentation, if at all considered, should be applied in addition to, and not instead of, the distinction by technology and/or by size. Indeed, if broad segments for "all O&G" or "all IPG" gas turbines were defined, they would encompass both small and medium gas turbines and both industrial and aero-derivative gas turbines, and thus products that are remote competitors to each other.
- (28) To support such a distinction according to specific end-applications the Parties claim the following substantial differences between the two applications: (i) the security and health aspects differ significantly between O&G and IPG customers; (ii) the disruption to production and environment risks are more severe for O&G customers; and, (iii) the constant use of the gas turbines within O&G for reasons of continuity of supply.
- (29) In addition, a further sub-segmentation could be envisaged between onshore/offshore for O&G applications, and single cycle ("SC")/combined cycle ("CC")/cogeneration for IPG applications. If such sub-segmentation was considered, the Parties' activities would, at EEA level, only overlap on a limited number of segments.
- (30) From the market investigation it is unclear whether gas turbines could be segmented by end-application. Half of the respondents in fact stated that the choice of a gas turbine depends on the requirements of each single project and therefore it is unclear whether a broader differentiation between IPG and O&G is relevant.²⁷
- (31) However, it should be noted that all respondents active in the O&G sectors consider that it is relevant to distinguish between IPG and O&G given that O&G projects require very specific technical characteristics.²⁸ Further, most state that there is a price difference depending on end-applications.²⁹
- (32) When it comes to whether the specifications of a gas turbine being different between O&G offshore and O&G onshore applications, the replies are split when considering all respondents³⁰, but all actors active in the O&G sector consider that such distinction is relevant³¹. A similar segmentation can be made for IGTs, where

²⁵ Questionnaire 1 for Customers, questions 13 and 14.

²⁶ Questionnaire 2 for Competitors, questions 9, 10 and 11.

²⁷ Questionnaire 1 for Customers, questions 24 and 25, Questionnaire 2 for Competitors, questions 24 and 25.

²⁸ Questionnaire 1 for Customers, question 24.

²⁹ Questionnaire 1 for Customers, question 25, Questionnaire 2 for Competitors, question 23.

³⁰ Questionnaire 1 for Customers, question 26, Questionnaire 2 for Competitors, question 24.

³¹ Questionnaire 1 for Customers, question 26.

the answers are split as to the difference between a simple cycle³², combined cycle or cogeneration, but respondents active in IPG applications consider such distinction to be relevant³³. Competitors are divided as to the ability to supply the IPG sector, if normally present within the O&G sector and vice versa.³⁴

4.1.1.4. Conclusion on the product market definition for gas turbines

(33) In conclusion the Commission considers that for the purposes of the present transaction the exact product market definition of the market for gas turbines and its segments can be left open considering that no competition problem is likely to arise under any product market definition.

4.1.2. *Compressors and compressors set*

(34) Compressors are designed to compress or squeeze air and other gases into a more pressurized state than that in which they exist under normal atmospheric conditions. They are employed in petroleum refineries, natural gas processing plants, petrochemical and chemical plants, and similar large industrial plants which require compression of intermediate and end-product gases, as well as being used in a variety of applications within the oil and gas supply chain.

(35) In previous decisions, the Commission has in the first place distinguished between air and gas compressors. Within gas compressors, a segmentation between standard and process compressors was considered, and, within gas process compressors, between positive displacement compressors and dynamic/turbo compressors.³⁵ However, the exact market definition was ultimately left open.

(36) The Parties' activities only overlap with regard to the sale of gas process turbo compressors (below referred to as "gas turbo compressors").

(37) The Parties agree with the above segmentation of the product market.

(38) Compressors are for the largest part (for more than 95% of compressors sold, according to the Parties) sold to end customers as part of gas turbo compressor sets combining a gas turbo compressor and the gas turbine that is driving the compressor. The remainder are sold on a stand-alone basis. Gas turbo compressor sets and gas turbo compressors sold on a stand-alone basis could be considered as being part of the same market or as constituting two distinct relevant markets.

(39) As regards gas turbo compressor sets, since they include the gas turbine that is driving the compressor, the segmentations envisaged above for gas turbines (by technology, by output, by end-application) can be regarded as relevant for such compressor sets as well.

(40) In particular, gas turbo compressors and gas turbo compressors set used in the oil & gas ("O&G") sector could be regarded as constituting a distinct product market

³² Questionnaire 1 for Customers, question 27, Questionnaire 2 for Competitors, question 25.

³³ Questionnaire 1 for Customers, question 27.

³⁴ Questionnaire 2 for Competitors, questions 26 and 27.

³⁵ COMP/M.6222 *GE Energy/Converteam* (2011), COMP/M.2834 *Alchemy/Compare* (2002), IV/M.1775 *Ingersoll Rand/Dresser Rand/Ingersoll Dresser Pump* (1999), IV/M.479 *Ingersoll Rand/MAN* (1994).

from turbines used in the industrial power generation ("IPG") sector. Within the O&G sector, a further segmentation of the market for gas turbo compressors and gas turbo compressors set in off-shore and on-shore applications could also be envisaged.

- (41) The Parties take the view that the only relevant segmentation of the market is for gas turbo compressors set, irrespective of end application. In fact, the Parties claim that is not appropriate to define a market for the sale of compressors on a stand-alone basis as compressors are typically sold to end customers as part of a set and they had only minimal sales of compressors on a stand-alone basis.
- (42) For the purposes of the present transaction the exact product market definition can be left open considering that no competition problem is likely to arise under any product market definitions.

4.1.3. *Servicing of Gas Turbines*

- (43) The Parties argue that the market for the servicing of gas turbines should be segmented as follows: (i) services that are sold together with or at the same time as a gas turbine by an OEM or as part of an associated long-term service agreement; and (ii) services sold separately from the gas turbines.
- (44) The Commission has previously considered several markets for servicing gas turbines.³⁶ It took as its starting point a putative market for the provision of services to all power generation plants, except for nuclear plants. The Commission also considered whether it would be appropriate to define the market more narrowly by reference to gas turbines (as opposed to, e.g., steam turbines), and/or by reference to mature technology turbines. The market investigation supported a distinction between non-mature and mature technology turbines. However, the exact market definition was left open as concerns did not arise on any basis.
- (45) In another decision³⁷, the Commission took as its starting point a putative market for the provision of overhaul and repair services in relation to industrial gas turbines. The Commission also considered whether it would be appropriate to define the market more narrowly by reference to the turbine manufacturer that is the OEM. The market investigation indicated a broader market definition that is without distinguishing by OEM. Ultimately, the exact market definition was left open as concerns did not arise on either basis.
- (46) In a more recent case, the Commission found the segmentation according to mature and non-mature technology to be appropriate. Further to this it considered a possible segmentation according to services rendered by OEMs and Independent Service Providers ("ISP") and concluded that they do form part of one same market. A further segmentation of the market according to size of the turbine and to OEM has been considered but eventually the market definition was left open.³⁸

³⁶ COMP/M.3084 - SIEMENS / SEQUA / JV, paras 12-15.

³⁷ COMP/IV/M.1224 - TPM / WOOD GROUP, paras 7-8.

³⁸ COMP/M.7083 - JOHN WOOD GROUP/ SIEMENS/ JV.

(47) For the purposes of the present transaction the exact product market definition can be left open considering that no competition problem is likely to arise under any product market definition.

4.2. Relevant geographic markets

4.2.1. Gas turbines

(48) The Parties submit that the geographic market, irrespective of how the product market is defined, is global in scope. They argue that major suppliers generally bid for all major contracts across the world, regardless of customers' location, and that contracts are offered in diverse geographic areas. A local presence is generally not required to supply gas turbines, however when necessary this can be established on an *ad hoc* basis to comply with the client's requirement.

(49) With respect to gas turbines, the Commission previously considered the market to be most likely EEA-wide in scope, if not world-wide. The precise definition of the geographic market was however left open.

(50) The market investigation supports the Parties' submission that the geographic market is indeed global in scope. Namely, the majority of respondents to the market investigation states that they buy gas turbines from production facilities both inside and outside of the EEA, for installing inside and outside EEA. For half of the respondents, they would not change their purchasing patterns as regards their gas turbine EEA operations if there was a 5-10% increase, while outside the EEA the price remained constant. Importantly, if the customers would totally or partially switch their purchasing patterns following a price increase, a strong majority of customers would look for new suppliers on a worldwide basis.

(51) Also, there are no hindrances to most customers in terms of transport costs, technical specification, national preferences or brand awareness that limit their ability to buy gas turbines from outside or inside the EEA. The same and equally strong majority does not find any barriers to their business in form of regulatory regimes, import duties, tariffs, quotas or patents etc.

(52) Almost all respondents state that there are no price differences between inside and outside the EEA, nor are there any quality or technical differences between inside or outside the EEA. The purchasing patterns of the customers within the gas turbine product market are not differentiated, regardless of whether they relate to inside or outside the EEA.

(53) For the purposes of the present transaction the exact geographic market definition can be left open considering that no competition problem is likely to arise under any geographic market definition.

4.2.2. Compressors

(54) The Parties argue that the market is global in scope. It is partly due to compressors primarily being supplied together with gas turbines sold, not on a stand-alone basis. Consequently, the Parties deem compressors to belong to an equally wide geographic market as the gas turbines they are supplied with.

- (55) The Commission has, in connection to compressors, found that the geographic market is at least EEA-wide in scope, and perhaps world-wide.³⁹
- (56) For the purposes of the present transaction the exact geographic market definition can be left open considering that no competition problem is likely to arise under any geographic market definition.

4.2.3. *Servicing of Gas Turbines*

- (57) Again, the Parties consider the relevant market to be world-wide, due to the conditions of competition being similar across world regions.
- (58) Regarding the servicing of gas turbines, the Commission has previously considered the market to be at least EEA-wide and possibly global in scope.⁴⁰
- (59) For the purposes of the present transaction the exact geographic market definition can be left open considering that no competition problem is likely to arise under any geographic market definition.

4.3. *Competitive assessment – horizontal analysis*

4.3.1. *Gas Turbines*

- (60) The proposed transaction will mainly have an impact on production and supply of gas turbines. Depending on how the product market is defined, the proposed transaction will give rise to certain affected markets.
- (61) If the market definition retained were the market for all small and medium gas turbines, irrespective of technology, power output and end application, the post-transaction combined market share of the Parties would be [20-30]% at worldwide level and [30-40]% at EEA level. On this hypothetical market, the increment would be [5-10]% at worldwide level and [10-20]% at EEA level. GE would remain the strongest player with an estimated market share of [40-50]% globally and [40-50]% at EEA level.⁴¹

³⁹ COMP/M.6222 *GE Energy/Converteam* (2011), COMP/M.2834 *Alchemy/Compare* (2002), IV/M.1775 *Ingersoll Rand/Dresser Rand/Ingersoll Dresser Pump* (1999), IV/M.479 *Ingersoll Rand/MAN* (1994).

⁴⁰ COMP/M.7083 *John Wood Group/Siemens/JV* (2014).

⁴¹ All market shares used in this note are the average of the past 5 years.

- (62) If the product market were segmented according to the type of technology, the parties' activities would not overlap. Siemens manufactures and supplies only IGTs whereas RR ADGT only offers ADGTs. Given the lack of an overlap the transaction would not give rise to any affected market. The analysis on the basis of such segmentation will thus not be further discussed.
- (63) If the product market were segmented according to the size of the turbines, irrespective of technology type and end use, the post-transaction situation would be the following:
- a. On the hypothetical *small gas turbines* market, the post-transaction combined market share of the Parties would be [10-20]% globally (Siemens [10-20]% and RR [0-5]%) and [20-30]% at EEA level (Siemens [20-30]% and RR [5-10]%; the strongest player would be Solar with [50-60]% at global level and [50-60]% at EEA level; and,
 - b. on the hypothetical *medium gas turbines* market, the post-transaction combined market share of the Parties would be [20-30]% at global level (Siemens [10-20]% and RR [10-20]%) and [30-40]% at EEA level (Siemens [20-30]% and RR [10-20]%) and the strongest player would be GE with a ca. [50-60]% market share at both global and EEA levels.
- (64) If the product market were segmented according to the end-application of the turbines, irrespective of the technology used and the size of the turbine, the post-transaction situation would be the following:
- a. On the hypothetical *O&G* market, the post-transaction combined market share of the Parties would be [10-20]% globally (Siemens [5-10]% and RR [5-10]%) and [20-30]% at EEA level (Siemens [10-20]% and RR [0-5]%; the strongest player would be GE with [40-50]% at global level and [60-70]% at EEA level; and,
 - b. On the hypothetical *industrial power generation (IPG)* market, the post-transaction combined market share of the Parties would be [20-30]% at global level (Siemens [20-30]% and RR [5-10]%) and [40-50]% at EEA level (Siemens [20-30]% and RR [10-20]%). The strongest player would be GE at global level with a ca. [40-50]% market share. At EEA level, the merged entity would be the strongest player but would face competition from GE ([20-30]%), Solar ([10-20]%) and Pratt & Whitney ([10-20]%).
- (65) If the product market were segmented according to both size and end-application, irrespective of the technology used, the post-transaction situation would be the following:

Sector	Size	Hypothetical market	Combined share worldwide (aver. 2009-2013)	Combined share EEA (aver. 2009-2013)
IPG	3-16 MW	--	[10-20]%	[20-30]%
IPG	16-60 MW	Simple Cycle (SC)	[20-30]%	[30-40]% (no increment)
IPG	16-60 MW	Combined Cycle / Cogeneration	[30-40]%	[60-70]% (no increment)
O&G	3-16 MW	Onshore	[10-20]%	[20-30]%
O&G	3-16 MW	Offshore	[10-20]% (no increment)	[40-50]% (no increment)
O&G	16-60 MW	Onshore	[10-20]%	[30-40]%
O&G	16-60 MW	Offshore	[10-20]% (no increment)	[0-5]%
O&G	30-60 MW	Offshore	[20-30]% (no increment)	[0-5]%

- (66) As such, the plausible horizontally affected markets are the following:
- a. All small gas turbine, at EEA level ([20-30]% combined market share);
 - b. All medium gas turbines, at both global ([20-30]%) and EEA levels ([30-40]%)
 - c. All turbines for all O&G application, at EEA level ([20-30]%)
 - d. All turbines for all IPG applications, at both global ([20-30]%) and EEA levels ([40-50]%)
 - e. Small gas turbines for onshore O&G application, at EEA level ([20-30]%)
 - f. Medium gas turbines for O&G offshore applications, at EEA level ([30-40]%)
 - g. Small gas turbines for all IPG application at EEA level ([20-30]%)
 - h. Medium gas turbine for IPG simple cycle application at global level ([20-30]%)
 - i. Medium gas turbines for IPG Combined Cycle/Cogeneration applications, at global level ([30-40]%).
- (67) The Parties claim that, despite the fact that the proposed transaction may potentially give rise to the above affected markets, no competition concerns will

arise. The Parties argue that they are not close competitors on any possible segment. Further they argue that customers exert significant buyer power. Finally, the Parties claim that a number of strong competitors being able to effectively compete with the merged entity will remain on the market.

- (68) The Commission considers that the Parties are distant competitors. Siemens only produces IGTs while RR only produces ADGTs. The market investigation confirmed that ADGTs and IGTs have distinct characteristics and are often used for different application. ADGTs are the preferred product for applications where low size and weight as well as a short start-up period and short maintenance times are essential. IGTs on the other hand often have lower NOx emissions, lower fuel requirements and lower initial capital cost. As a result, in a power range where both ADGTs and IGTs are available ADGTs are often more suited for a specific application than IGT, and *vice versa*.
- (69) This point was confirmed during the market investigation. The majority of responding customers did not consider ADGTs and IGTs comparable to one another. None of the respondents – except for one – considers the Parties to be close competitors in the market(s) for small and medium sized gas turbines.
- (70) Furthermore, the bidding data submitted by the Parties indicates that ADGTs and IGTs compete only to a very limited extent. Out of all the bids that Siemens made in the EEA in the past six years, an industrial gas turbine supplier won in more than [...]%. Out of all the bids that Rolls-Royce submitted in the past six years in the EEA, an aero-derivative gas turbine supplier won in about [...]%. Out of the total number of more than [...] projects in the EEA in the past six years involving the supply of gas turbines the Parties bid against each other on only [...] occasions – of which [...] projects were won by a third party.
- (71) Regarding buyer power, the Parties submit that the markets are bidding markets and purchasers of gas turbines having significant buyer power *vis-à-vis* the suppliers. They claim that (i) gas turbines, whether bought as a stand-alone product or as part of a gas turbine compressor set, are usually sourced in tender procedures; (ii) customers have technical expertise (either in-house or through using sub-contractors; and (iii) may enter into framework agreement with suppliers giving them the freedom to "mix and match" components of different suppliers according to customers' preferences.
- (72) The market investigation in the present case showed that gas turbines are often purchased in a tender process. Prior to a call for tender the buyer specifies the technical requirements of the turbine that he plans to employ. The market investigation furthermore confirmed that customers – in particular in the segment of O&G application – are large multinational companies with a substantial technical knowledge of the products. Bids that do not fully meet the exact technical requirements – if submitted at all – are not further considered in the bidding process. Thereby customers can ensure to choose the most competitive alternative among the products that meet the technical requirements. Accordingly, the majority of respondents therefore consider that the threat to switch to another supplier is a credible one. However, the market investigation also showed, that other means to exert buyer power such as threatening to sponsor a new supplier, delay payments or stop purchasing are of minor importance in the market. Against this background, the Commission considers that customers have negotiation power *vis-à-vis* the vender to some extent.

- (73) The market investigation also showed that a number of customers have framework agreements in place with suppliers of gas turbines. These framework agreements are usually non-exclusive, allowing customers to purchase turbines from several suppliers according to their preferences. They usually do not bind the customers to make purchases nor do they guarantee the customer a certain price for turbine purchases. If bids submitted by a supplier holding a framework agreement are not competitive a customer can simply bypass them. Nevertheless, given the flexibility within framework agreements it seems unlikely that framework agreements significantly limit a supplier's negotiation position *vis-à-vis* a customer.
- (74) Moreover, the Commission considers that a number of strong competitors able to effectively compete with the merged entity will remain on the market. In the hypothetical market of small gas turbines, Solar, offering IGTs, will remain the strongest market player with [50-60]% at global level and [50-60]% at EEA level. In the segment of medium sized gas turbines GE will remain the strongest supplier with a of approximately [50-60]% market share at both global and EEA levels, offering both IGTs and ADGTs. In addition, Kawasaki Heavy Industries and Pratt & Whitney Power Systems/Mitsubishi Heavy Industries, with market shares either greater or comparable to those of the merging entities will remain active market players, maintaining or even extending their product range of gas turbines. The competitors' market activity is also reflected in the bidding data submitted by the parties indicating that competitors won a substantial share of projects that were put out to tender in the past six years.
- (75) Finally, the majority of the responding market participants assumes that the transaction will not have any adverse effect on their undertaking and on the competition in the market for small and medium sized gas turbines and its individual segments. One competitor expects that, as a result of the transaction, competition in the segment of industrial power generation applications will increase. Some customers – among them a packager of gas turbine sets – expect that the merged entity will be in a better position to compete with GE.
- (76) Given the above, the Commission considers that the transaction does not give rise to serious doubts as regards its compatibility with the internal market on the following markets:
- a. The market for small gas turbines, irrespective of the end application;
 - b. The market for medium gas turbines, irrespective of the end application;
 - c. The market for small gas turbines used in the IPG sector;
 - d. The market for medium gas turbines used in the IPG sector in simple cycle applications;
 - e. The market for medium gas turbines used in the IPG sector in cogeneration and combined cycle applications;
 - f. The market for small gas turbines used in offshore O&G applications;
 - g. The market for small gas turbines used in onshore O&G applications;
 - h. The market for medium gas turbines used in offshore O&G applications;

- i. The market for medium gas turbines used in onshore O&G applications;
- j. The market for gas turbines with a capacity between 30 MW and 60 MW used on offshore O&G applications.

4.3.2. Compressors

- (77) If a market for the supply of gas turbines gas process turbo compressors on a stand-alone basis is considered, the proposed transaction will not generate any overlap. In fact only Siemens supplies such compressors on a stand-alone basis.
- (78) As regards compressor sets, a small overlap of [5-10]% within the EEA (Siemens [5-10]% and RR [0-5]%) exists on a putative market for the supply of gas turbine gas process turbo compressor sets.
- (79) If compressor sets were to be segmented in line with plausible segments of the market for gas turbines (by output, by technology, by end-application), the Parties submit that the Transaction would not give rise to any affected market.
- (80) The Parties state that the limited increment shows that they are not each other's closest competitor and that competition concerns are unlikely to appear at this low level of market shares. Both Parties supply gas turbine compressor sets, but not for similar applications as Rolls-Royce supplies compressors in connection to its own ADGTs, while Siemens mostly supplies compressors on a stand-alone basis for industrial applications.
- (81) Additionally, the Parties state that there will be strong remaining competitors on the market after the proposed transaction such as GE (estimated market share [30-40]%), Solar (estimated market share [10-20]%), and Dresser Rand (estimated market share [10-20]%). All competitors will be in a position to act as competitive forces also post-merger, particularly as neither of the Parties is a substantial player within this market. [...].
- (82) The market investigation showed that the proposed transaction is unlikely to have any adverse effect on a hypothetical market for compressors and compressors sets due to horizontal overlaps of the activities of the Parties. The Commission therefore agrees with the statements of the Parties.
- (83) Given the above, the Commission considers that the transaction does not give rise to serious doubts as regards its compatibility with the internal market on the markets for compressors and compressor sets, nor any of their plausible sub-segments.

4.3.3. Servicing of Gas Turbines

- (84) On the market for the servicing of gas turbines, the proposed transaction will not lead to any affected markets, irrespective of the market definition adopted.
- (85) If the product market is defined as the market for the servicing of all gas turbines, regardless of size and OEM, the post transaction market share of the Parties would be of [10-20]% at global level and [20-30]% at EEA level. Moreover, the increment brought about by the proposed transaction would be minimal. At a global level RR has an estimated market share equal to [0-5]% and at an EEA level of [5-10]%.

- (86) If the relevant product market is further segmented per OEM, as considered possible in previous cases, the activities of the Parties would not overlap as Siemens does not service RR turbines, and vice versa. This also holds true when considering the activities of Ethos Energy, a jointly controlled JV between Siemens and WG, and of RWG. [...].
- (87) The Parties claim that the proposed transaction will not have an impact on the market for the servicing of gas turbines for the following reasons:
- a. Siemens and RR are not close competitors. As OEMs, in fact, they do not compete at all;
 - b. The market for the services to gas turbines is a market where other strong competitors will remain on the market such as GE, Alstom, Solar and Mitsubishi Heavy Industries within the EEA;
 - c. Not only OEMs will constrain Siemens post transaction, but also ISPs;
 - d. Customers on the market are sophisticated industrial customers exerting significant buyer power.
- (88) Therefore, the Commission considers that the transaction does not give rise to serious doubts as regards its compatibility with the internal market on the market for the servicing of gas turbines, nor any of its plausible sub-segments.

4.4. *Competitive assessment – conglomerate analysis*

- (89) During the market investigation, two competitors in the manufacturing of compressors and one customer in the O&G sector expressed concerns in relation to the market for compressor sets for offshore O&G applications. In summary, they expressed the concern that the acquisition of RR by Siemens could allow the latter to restrict access to RR's ADGTs by gas turbo compressors manufacturers. Hence gas turbo compressor manufacturers would be prevented from competing for certain projects in the offshore O&G segment.
- (90) As explained in Section 4.1.1.3, in the offshore O&G segment ADGTs are typically preferred over IGTs. This is due to their lower weight and size and lighter maintenance requirements. Up to a certain output range (c. 25-30 MW), there is still a limited degree of substitutability between IGTs and ADGTs for offshore O&G applications. Above this power output, the use of ADGTs is the only viable option, according to the majority of respondents.
- (91) As explained in Section 4.3.1, when looking at a putative segment for 30-60 MW gas turbines for offshore O&G applications more in particular, there are only two suppliers having the required ADGT capabilities: GE with an estimated market share of [70-80]% and Rolls-Royce with an estimated market share of [20-30]% at global level.
- (92) As explained in Section 4.1.2, end customers usually purchase gas turbo compressors sets, associating a gas turbine and a compressor. The market investigation confirmed that, in order to create a gas turbo compressor set, the compressor OEMs that do not have gas turbines manufacturing capabilities either (i) purchase gas turbines from gas turbine OEMs and integrate them with their own compressors (the compressor OEM "goes prime"), or (ii) sell their compressors to

gas turbine OEMs that integrate these compressors with their own turbines (the gas turbine OEM "goes prime"). Alternatively, the end customer purchases the two items separately and then entrusts one of the two OEMs, usually the compressor OEM, to combine the two elements.

- (93) In the segment of compressor sets for offshore O&G applications using 30-60 MW ADGT gas turbines, compressor OEMs (except for GE) have no other option but to partner with the only two active turbines OEMs, GE and Rolls-Royce, for their sales of compressors.
- (94) In this context, certain market participants expressed concerns that the Parties, post-transaction, may use their market power in the supply of 30-60 MW gas turbines for offshore O&G applications to foreclose competitors in the market for compressor sets for offshore O&G applications using 30-60 MW gas turbines. The scenario described by these market participants is one of tying, with gas turbines being the tying good and compressors being the tied good: the Parties would only supply their gas turbines at the condition that the customer also purchases the compressor from the Parties. However, the below analysis of the Parties' ability and incentive to foreclose applies equally to potential tying and bundling strategies.
- (95) With regard to the Parties' ability to foreclose, it cannot be excluded that the Parties could have a significant degree of market power on a putative market for 30-60 MW gas turbines for offshore O&G applications. The Commission notes that the existence of another player with plausibly higher market power does not *per se* exclude the possibility for the Parties to have a significant degree of market power as well.
- (96) However, the market investigation has shown that there is a sufficient degree of buyer power that would significantly constraint the Parties' ability to foreclose. O&G customers want to be able to "mix and match" the gas turbine of their choice with the compressor of their choice, in order to have a compressor set that meets the exact technical and performance requirements of their project. Crucially, O&G customers tend, for offshore O&G projects, to perceive compressors as the most customised component of the package, with gas turbines being seen as a more standardised product. It can be noted that compressor OEMs are typically chosen as integrator and interface by O&G customers, rather than gas turbine OEMs.
- (97) Against this background, O&G customers contacted during the market investigation have considered that the strategy to "impose" the purchase of a certain compressor as a condition for the supply of a gas turbine would only work if such compressor happens to meet the exact technical and performance requirements of the project, but would otherwise be "unrealistic". In the past, gas turbine and compressor OEMs working on an exclusive basis (i.e. associating a specific turbine with a specific compressor when responding to bids) have, at least in certain occasions, been forced to leave their exclusivity arrangements and associate their gas turbine with a third party's compressor (or their compressor with a third party's gas turbine).
- (98) Contacts with market participants also confirmed that Siemens is not generally perceived as a strong competitor with respect to the manufacture of compressors for offshore O&G applications. All the market participants contacted, in fact, perceive Siemens as a second tier competitor and regard it as inferior to other competitors such as GE and Dresser Rand. Although the market investigation has

not allowed to gather the exact market shares for compressor sets for offshore O&G applications, all respondents have estimated Siemens share below or significantly below 10%, while GE was estimated in the 30-40% range and Dresser Rand in the 20-30% range.

- (99) Market participants explained that Siemens is not a strong competitor because it lacks the technology to cover the full range of products typically required by end customers, such as higher pressure compressors. Moreover, in the course of the market investigation it emerged that O&G customers are generally very conservative and, given the complexity of the compression equipment, they tend to prefer suppliers with a proven track record and reliability. Since Siemens currently lacks a sufficient track record in the field of compressors, market participants consider that it currently does not effectively compete with stronger players such as GE and Dresser Rand. Even though Siemens is currently participating in calls for tender issued by O&G customers, market participants expect that it will require more than three years to build the reputation and track record required to be perceived as an effective competitor of the more established player on the market.
- (100) Finally, from contacts with other market participants it emerged that a new supplier on the medium 30-60 MW ADGT is expected within three years. That new supplier is expected to meet the offshore O&G standards. Therefore manufacturers of compressors will have the possibility to resort to a further manufacturer of ADGTs thus lessening Siemens ability to foreclose.
- (101) In view of the above, the Commission considers that the Parties are unlikely to have the ability to enter into a successful foreclosure strategy with regard to compressor sets for offshore O&G applications.
- (102) The Commission considers that is not necessary to conclude as to the Parties' incentive to foreclose, in view of the doubts as to the Parties' ability to do so. However, in any event the Parties do not seem to have an incentive to enter into a foreclosure strategy as the potential profit gain by selling an additional compressor is low compared to the potential loss by losing the sale of a gas turbine. The investigation indicated that the gas turbine typically accounts for [70-80]% of the total cost of a compressor set for offshore O&G applications, with the compressor representing [30-40]%. In addition, information provided by the Parties indicates EBIT margins of around [10-20]% for gas turbines (when including associated servicing revenues) and of around [0-5]-[5-10]% for compressors.
- (103) The Commission also considers that is not necessary to conclude as to the effect on competition of a potential foreclosure strategy, as in any event the Parties do not have the ability and are unlikely to have the incentive to foreclose.

5. CONCLUSION

- (104) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation.

*For the Commission
(signed)
Joaquín ALMUNIA
Vice-President*