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***Case No COMP/M.4647 -
AEE / LENTJES***

Only the german text is authentic.

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

Article 8 (1)
Date: 05/12/2007



EUROPEAN COMMISSION

Brussels, 05.12.2007
C(2007)5842

PUBLIC VERSION

COMMISSION DECISION

of 5.12.2007

**declaring a concentration to be compatible with the common market and the
functioning of the EEA Agreement**

(Case COMP/M.4647 – AEE/ Lentjes)

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(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings¹, and in particular Article 8(1) thereof,

Having regard to the Commission's decision of 3 August 2007 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the Commission's objections,

Having consulted the Advisory Committee on Concentrations,

Whereas:

¹ OJ L 24, 29.1.2004, p. 1.

- (1) On 29 June 2007 the Commission received notification, pursuant to Article 4(5), read in conjunction with Article 4(1) and (2), of Regulation (EC) No 139/2004 ("the Merger Regulation") of a proposed concentration by which Austrian Energy & Environment AG & Co KG ("AEE", Austria), which forms part of the Austrian A-Tec group ("A-Tec"), acquires, within the meaning of Article 3(1)(b) of the Merger Regulation, sole control of Lentjes GmbH ("Lentjes", Germany, referred to jointly with AEE as "the parties") by way of purchase of shares from the previous shareholder, the GEA group, an international technology group (engineering and chemicals).
- (2) Having examined the notification, the Commission found that the notified proposal fell within the scope of the Merger Regulation and on 3 August 2007 it decided in accordance with Article 6(1)(c) of the Merger Regulation to initiate proceedings in this case.

I. THE PARTIES

- (3) AEE is engaged in plant engineering in the areas of energy and environmental technology. According to the company itself, it offers a full range of solutions for components, systems and turnkey plants, from the development (engineering) through the manufacture to the assembly, commissioning and modernisation of plants. Its service and product portfolio includes boiler manufacture (oil- and gas-fired boilers, liquor recovery boilers, heat recovery boilers and grate boilers for waste, biomass and coal), fluidised bed technology, flue gas cleaning, coal gasification plants and valves. The A-Tec group to which AEE belongs is active not only in the energy and environmental technology fields (via AEE), but also in the areas of drive engineering (ATB Austria Antriebstechnik AG), metallurgy (Montanwerke Brixlegg AG) and mechanical engineering (EMCO Star Alliance Holding GmbH).
- (4) Lentjes is engaged in the energy generation and environmental technology sectors. Its services include the engineering and execution² of turnkey plant projects, excepting manufacture and assembly. In the energy generation sphere its range of services is geared essentially to plants based on fossil fuels such as coal and gas. In addition, it supplies flue gas desulphurisation systems for power stations. In the environmental technology sphere its services portfolio includes the engineering of plants for the thermal treatment of municipal waste, hazardous waste, biomass, sewage sludge and residues, such as incineration plants.

II. THE TRANSACTION AND THE CONCENTRATION

- (5) The A-Tec group proposes to acquire 99% of the shares in Lentjes through its indirectly wholly owned subsidiary AEE. A-Tec would thus gain sole control of Lentjes.
- (6) The transaction therefore constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

² Execution includes monitoring the progress of work, project management, cold and hot commissioning, etc.

III. COMMUNITY DIMENSION

- (7) The parties' turnovers do not attain the financial thresholds laid down in Article 1(2) and (3) of the Merger Regulation. The merger is, however, deemed to have a Community-wide dimension in the present case in accordance with Article 4(5) of the Merger Regulation inasmuch as no Member State has expressed its disagreement with the request to refer the case made by reasoned submission of 30 April 2007³.

IV. RELEVANT MARKETS

- (8) The merger concerns the areas of the basic engineering and the supply of grate-fired thermal treatment plants for incinerating municipal waste⁴, thermal treatment plants based on fluidised bed technology and flue gas desulphurisation systems.
- (9) The parties either supply plants designed by them as complete plants⁵ or complete combustion lines or else they supply, on a lot basis, only the combustion unit (consisting, in the case of municipal waste incineration plants, of a boiler and a grate). In so doing they provide specific engineering services themselves, purchasing the actual components mainly from other suppliers. Notwithstanding that the A-Tec group is active in boiler manufacture through its subsidiary Duro Dakovic TEP d.o.o. ("Duro Dakovic"), AEE normally buys in boilers from other suppliers. The demand side consists of small operators such as municipalities, rural districts and regional operating companies, together with a number of large (private or public) waste incineration plant and power plant operators.
- (10) The main components/systems constituting a turnkey works, i.e. a complete plant or combustion line, have to be combined in such a way that the requisite performance figures are achieved. This service is known as execution and interface engineering. If a supplier offers to deliver a complete plant or combustion line, then it assumes responsibility for the execution and interface engineering. If, on the other hand, it offers a part of a plant, e.g. the combustion unit or the flue gas desulphurisation system, on a lot basis, then it is normally responsible for that part only, while the customer itself or an independent engineering consultancy assumes responsibility for the execution and interface engineering.

³ The merger would have been notifiable in the following Member States: Austria, Germany, Ireland and the United Kingdom.

⁴ Other fuels, such as biomass and coal, can also be burnt in grate-fired thermal treatment plants. Since, however, this was an area in which the parties' activities did not overlap during the 2002-06 reference period, it can be disregarded for the purposes of this Decision.

⁵ Where the parties participate in invitations to tender for complete municipal waste incineration plants, they also provide the engineering for the accompanying flue gas cleaning system. The Commission defined a separate relevant product market for flue gas cleaning systems in previous decisions: see Cases IV/M.1552 – Babcock Borsig/AE Energietechnik and IV/M.1594 Preussag/Babcock Borsig. Since, however, the parties do not market flue gas cleaning systems on a separate lot basis, but only as part of a turnkey plant project, such systems do not constitute a relevant market in the case at hand.

- (11) The product markets described below include – unless otherwise specified – the basic engineering⁶ and the supply of a plant part (including the – bought-in – manufacturing and assembly services), and, in the case of turnkey plants or combustion lines, the layout and interface engineering.

1. Relevant product market

- (12) In the area of thermal treatment plants the parties claim that the product market can be defined on the basis of the incineration method used and they distinguish between grate-fired thermal treatment plants with a capacity of at least 4.5 t/h⁷ or 15 MWel⁸ and fluidised bed thermal treatment plants with a capacity of up to 200 MWel.

a) Grate-fired thermal treatment plants

Market for municipal waste incineration plants

- (13) According to the parties, not only various types of waste, in particular municipal waste, hazardous waste and commercial and industrial waste, and substitute fuels⁹ but also conventional fuels such as coal and biomass can be thermally treated in grate-fired thermal treatment plants. The parties' activities in relation to the basic engineering of grate-fired thermal treatment plants overlapped during the 2002-06 reference period only in the area of municipal waste incineration plants.
- (14) In its previous decisions in Cases IV/M.1552 – Babcock Borsig/AE Energietechnik and IV/M.1594 – Preussag/Babcock Borsig, the Commission defined a narrower relevant product market, namely a market for municipal waste incineration plants. The parties take the view that the said Commission decisions are to be seen in a context in which waste other than untreated municipal waste played at the time no part in thermal treatment.
- (15) In its 2006 decision in the *Von Roll Inova/Alstom Power Conversion* case, however, the German Federal Cartel Office likewise defined a relevant product market for municipal waste incineration plants¹⁰. This definition has been confirmed by the market investigation conducted by the Commission in the present case.
- (16) During the market investigation, the majority of customers, i.e. municipal waste incineration plant operators, and suppliers came out in favour of such a definition of the relevant product market. From the point of view of customers, a distinction must be drawn in the case of thermal plants between different fuels inasmuch as they necessitate different technological solutions, that is to say, there is no demand-side

⁶ Working-out of the main data for complying with the required performance and waste-gas limit values, from which are derived the detailed parameters for the individual process steps. On the distinction with detail engineering, see paragraphs (21) *et seq.*

⁷ "Tonnes per hour" – the amount of municipal waste that can be incinerated in an hour.

⁸ "Megawatt electric" – stands for the designed output of a power plant.

⁹ Substitute fuels are generally boiler-ready, high calorific value fuels which are processed for energy recovery purposes and which are in most cases specifically quality tested. As a rule they are obtained from waste originating in households, industry and businesses.

¹⁰ See Federal Cartel Office decision of 15 May 2006, Gesch.-Z.: B5-185/05, *Von Roll Inova/Alstom Power Conversion*, paragraph 31.

substitutability on the part of plants between different fuels. Similarly, from the point of view of suppliers, i.e. the parties' competitors, it is not possible to supply plants for other fuels without further ado, for reasons to do with technological know-how and the need for reference projects to demonstrate their own ability to produce certain plants. This applies especially to coal-fired treatment plants as opposed to waste incineration plants, but it also holds true for the distinction between biomass and municipal waste. The market investigation showed that municipal waste incineration requires, owing to the heterogeneous composition of the waste, much more complex solutions than, for example, the relatively homogeneous fuel that is biomass¹¹.

- (17) The ROWITEC firing technology offered by Lentjes as sole licensee in the Community¹² cannot be assigned – contrary to the view taken by the parties – to the market for municipal waste incineration plants. ROWITEC technology is based on fluidised bed firing. It is true that, in contrast to all other thermal treatment techniques using fluidised bed firing, this technology can also be used to incinerate untreated municipal waste, which means that it can be equated with grate firing. However, the market investigation showed that such waste must be pre-sorted to remove certain materials prior to incineration, which is not the case with grate firing. From the customer's point of view, such plants therefore do not compete with municipal waste incineration plants based on grate technology but instead must be assigned to the market for thermal treatment plants based on fluidised bed technology¹³.

Complete plants and parts of plants ("lots")

- (18) The market for municipal waste incineration plants can be further segmented. First of all, a distinction can be drawn between the supply of complete plants or combustion lines as main contractor and the supply of individual plant parts (called "lots" or "islands"), such as the combustion unit (grate and boiler)¹⁴. The parties are active both in the area of turnkey plants and in that of tendering for lots but they never supply only a boiler or a grate, supplying always whole combustion units consisting of both components¹⁵. As already indicated, when it supplies a complete plant or combustion line the main contractor bears full responsibility for the execution and interface

¹¹ The parties point out that there is no uniform definition of biomass in the thermal treatment context. Various solid fuels of organic origin (but often with a high inorganic and pollutant content) are, they say, frequently described as biomass (see form CO, points 140 *et seq.*).

¹² The licensor is the Japanese firm Ebara, which currently offers ROWITEC plants for sale only in Switzerland and otherwise only outside Europe.

¹³ However, contracts were awarded during the reference period for only two plant projects based on ROWITEC technology (Allington und Sleco).

¹⁴ Generally speaking, a distinction can be drawn between the following processing steps in a municipal waste incineration plant: unloading of the waste, feeding into the combustion unit (grate and boiler), cleaning of the exhaust gases, electricity generation (turbine). These steps correspond roughly to the possible lot-based breakdown, to which must be added the general lot monitoring and control technology and the construction of the necessary buildings.

¹⁵ According to the parties, the combustion unit consisting of a grate and a boiler is as a rule put out to tender as one lot. A further subdivision is, they say, unusual owing to the disproportionate increase in the number of interfaces and the resulting uncertainties in relation to liability and performance (see form CO, points 105 and 109). The detailed tender information which the Commission received as part of the in-depth Phase II market investigation bore this out. Plants which were subdivided into lots included one lot for both the grate and the boiler. The question whether further sub-markets need to be defined for the individual components can therefore be left open here.

engineering. This requires not only appropriate technical know-how and reference projects by which a supplier shows that it is in a position to assume responsibility for a turnkey plant as main contractor but also a stable financial background indicative of an ability to bear the associated liability risks. Otherwise, a supplier will simply not be considered for the award of a contract. The question whether the supply of complete plants, on the one hand, and the supply of individual plant parts, on the other, form separate relevant product markets can, however, remain open in this instance as under both possible market definitions no competition concerns arise as to the compatibility of the planned concentration with the common market (see section V.1.a. for details).

Plants with a capacity of more than 4.5 t/h

- (19) As already indicated, the parties maintain that a distinction should be drawn between plants with a capacity of up to 4.5 t/h and larger capacities, since smaller plants cannot be offered either by the parties or by their competitors at competitive prices¹⁶. Such plants are, according to the parties, sourced by customers from other suppliers, as a rule small engineering consultancies. This distinction is also made in the Vaccani study, a study containing reference statistics for this sector¹⁷. The market investigation showed that a distinction must be drawn between small and large plants. It yielded evidence to suggest that a significant threshold might be a capacity of approximately 8-10 t/h, above which smaller suppliers are currently unable to bid¹⁸. The question whether plants with a capacity of at least 8-10 t/h form a separate relevant product market can, however, be left open as the outcome of the competition assessment is the same whatever the actual market definition. In what follows, therefore, it is the market for municipal waste incineration plants with a capacity of more than 4.5 t/h that will be considered.

Conclusions on municipal waste incineration plants

- (20) In conclusion, the supply of municipal waste incineration plants based on grate technology constitutes a separate relevant product market. The question whether this market must be subdivided into sub-markets according to type of contract – for turnkey plants/combustion lines or for lots – can be left open. Within the market for municipal waste incineration plants, medium-sized to very large plants form a separate sub-market, and for the purposes of this Decision a lower capacity limit of 4.5 t/h is taken as the demarcation line (see paragraph (19)).

¹⁶ A wider delineation of the relevant product market so as to include plants with a throughput capacity of less than 4.5 t/h would, moreover, portray the parties' market position in the relevant area as being weaker than it actually is.

¹⁷ Vaccani, Zweig & Associates, *European Market Share Analysis of Thermal Waste Treatment Plants*, March 2007.

¹⁸ Large suppliers do not normally participate in tenders for small (low-capacity) plants as such projects are financially attractive to them only above a certain size; conversely, there are numerous small suppliers which have developed a particular niche in the small-capacity plant segment but which lack the financial strength to bid for large plants. Nevertheless, during the reference period both AEE and Lentjes took part in tenders for plants with a capacity of less than 8 t/h.

Detail engineering of municipal waste incineration plants

- (21) A further distinction can be drawn between basic engineering and detail engineering. Detail engineering includes the exact manufacturing specifications and detail drawings for the manufacture of plant components (e.g. the boiler or the grate). According to the parties, detail engineering services are provided primarily by the firms responsible for the manufacture of the required components. In their opinion, detail engineering might therefore be combined with actual manufacture to form a single market.
- (22) The parties maintain that a separate relevant product market must be defined for detail engineering. A-Tec is active in this area through its subsidiary Duro Dakovic TEP d.o.o. (boiler pressure components) and the A-Tec group company (since 2005) I.D.E.A Private Ltd. (various plant parts such as pressure vessels and pipes) as well as to a lesser extent through Babcock Power España S.A. (valves). Duro Dakovic TEP d.o.o. and I.D.E.A Private Ltd. provide detail engineering services both inside the group and as an external service, i.e. as subcontractor to another company which is responsible for the basic engineering. Duro Dakovic TEP d.o.o. provides such services to third parties outside the A-Tec group approximately [...] *% of the time, while I.D.E.A Private Ltd. and Babcock Power España S.A. do so most of the time.
- (23) According to the parties, Lentjes achieved no separate turnover in detail engineering services since it provides such services only for its own projects and not for other companies which supply the basic engineering for municipal waste incineration plants. In such cases, the actual manufacture of the necessary components is carried out by a subcontractor on behalf of Lentjes, which sells the components as supplier in its own name.
- (24) The question of the precise definition of relevant product markets in this area can be left open owing to the lack of any horizontal overlaps between the parties' activities and the absence of any competition concerns regarding the vertical relationship between detail engineering and the supply of plants or plant parts (or basic engineering).

Manufacture of boiler pressure components

- (25) The parties distinguish a separate relevant product market for the manufacture of boiler pressure components. They maintain that, on the basis of specific detail engineering, boiler pressure component manufacturers can manufacture all types of boiler pressure component, from boilers for thermal treatment plants to large boilers for power stations (including for large coal-fired power plants). No specific know-how is needed to manufacture a particular boiler type. In particular, boiler pressure component manufacturers need have no understanding of the technology of the plants for which individual boilers are intended.

* Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

(26) A-Tec is also active in the area of boiler pressure component manufacture through its indirect subsidiary Duro Dakovic TEP d.o.o. and the A-Tec group company (since 2005) AE&E Chennai Works Ltd. These two firms supply components both inside the group and outside. Duro Dakovic TEP d.o.o. supplies such components approximately [...] *% of the time internally, while AE&E Chennai Works Ltd. mainly supplies third parties. Lentjes is not active in this area, but it is active in the downstream market for the supply of turnkey plants or combustion units for municipal waste incineration plants, for which boiler pressure components are needed.

(27) The market investigation did not reveal any factors such as might justify departing from the market definition suggested by the parties. There is therefore considered to be a relevant product market for the manufacture of boiler pressure components¹⁹.

b) Market for thermal treatment plants (fluidised bed technology) with a capacity of up to 200 MWel

(28) The parties maintain that fluidised bed thermal treatment plants with a capacity of up to 200 MWel should be considered a separate relevant product market, since the planning of fluidised bed plants with a capacity of more than 200 MWel is much more complex and requires proportionately more know-how. The parties are active only in the area of plants with a capacity of less than 200 MWel²⁰.

(29) In the case of fluidised bed firing, the fuel is suspended over a jet bed and fluidised. Use of a fluidised bed necessitates a reduction in the size of the fuel particles and the removal of any large incombustible matter. This can be done in a shredder with an air separator or, in the case of coal, in a hammer mill.

(30) Fluidised bed thermal treatment plants used to be used to burn coal and biomass. Following the introduction of improved technology, fluidised bed processes have developed into a multi-fuel technology which makes it possible to thermally exploit a wide variety of fuels (coal, many types of residual material, substitute fuels, sewage sludge, biomass, etc.). However, untreated municipal waste cannot as a rule be utilised in fluidised bed processes. An exception is the ROWITEC technology applied by Lentjes, which nevertheless necessitates pre-sorting of the municipal waste (see section 1.a., paragraph (17)).

(31) The existence of a separate overall market for fluidised bed systems (as distinct from thermal treatment plants based on grate technology) with a capacity of up to 200 MWel

¹⁹ AEE is also active, through its indirect subsidiary Babcock Power España S.A., in the area of the manufacture of valves, which may be used in a multitude of plants, including power plants, in the chemical, petrochemical, oil and gas industries and in the nuclear industry, as well as in thermal treatment plants. According to the parties, these are standardised products which are only slightly adapted for specific uses. The parties state, further, that Babcock Power España S.A. manufactures valves mostly for third parties and not for the area of thermal treatment plants (either of the parties or of their competitors). In what follows, this area will not be discussed any further as there is no evidence to suggest that the planned concentration would have any merger-induced competition effects in this area.

²⁰ A wider delineation of the market so as to include larger-capacity plants would therefore portray the parties' market position in the area of relevance to them, namely that of plants with a capacity of less than 200 MWel, only imprecisely.

was largely confirmed during the Phase I market investigation. Nevertheless, owing to the different applications of this technology (and in particular the different fuels used), the question arises whether this area should not be subdivided into further segments or separate relevant product markets. In the area of fluidised bed plants with a capacity of less than 200 MWeI, a distinction can be drawn in particular between – apart from ROWITEC technology – stationary and circulating fluidised bed firing. While, according to market participants, stationary fluidised bed firing is suitable for plants with a small electricity-generating capacity (up to about 50-60 MWth or 30 MWeI), circulating fluidised bed firing is generally to be found in plants with a higher capacity. The boundaries are not clear cut, however, and there is an intermediate area where both technologies are applied.

- (32) The in-depth Phase II market investigation showed that the leading suppliers of fluidised bed plants have appropriate know-how in both technologies and can offer the appropriate solution when required. Many suppliers have, however, taken the strategic decision to focus (primarily) on one or other technological area. The parties offer for sale both stationary and circulating fluidised bed plants, with Lentjes offering in addition plants based on the above-mentioned ROWITEC technology (although during the reference period only one order was won for a stationary fluidised bed plant and two for ROWITEC plants²¹).
- (33) The question whether the market for fluidised bed plants with a capacity of less than 200 MWeI should be subdivided into further sub-markets on the basis of the technology applied can, however, ultimately be left open as the planned concentration raises no competition concerns even in the event of a narrower market definition based on the different technologies (stationary, circulating and ROWITEC). From a horizontal point of view, there would even then be very little overlap between the parties' activities, Lentjes having during the reference period obtained the contract for only two ROWITEC plants and one stationary fluidised bed plant. Irrespective of the market definition in the (downstream) market for fluidised bed plants there are likewise no competition concerns from a vertical point of view since in the upstream market for flue gas desulphurisation systems (see section c) the parties would be unable to prevent other market participants from purchasing a specific flue gas desulphurisation technology (so-called circulating fluidised bed flue gas desulphurisation) (see section c, paragraph (38)).

c) Flue gas desulphurisation systems

- (34) The parties also maintain that a separate relevant product market must be defined for flue gas desulphurisation systems. This market is upstream of the market for fluidised bed thermal treatment plants (with a capacity of less than 200 MWeI) as in the event of tenders for turnkey plants fluidised bed plant suppliers have to buy in the flue gas desulphurisation unit unless they are vertically integrated and have the necessary expertise in-house.
- (35) Flue gas desulphurisation (FGD) systems are used in power stations to remove, with the help of chemical processes or through the addition of lime or limestone, sulphur

²¹ During this period Lentjes took part in a total of [...] tenders in the fluidised bed sector ([...]* circulating and [...] stationary fluidised bed plants). The contract awarded to Lentjes during this period for a stationary fluidised bed plant concerned a very small sludge incinerating plant in the United Kingdom with an electrical generating capacity of approximately 1 MWeI.

compounds from the exhaust gases that are created when the boiler is fired. Such systems are used almost exclusively in pulverised-coal-fired power stations or in power stations with fluidised bed boilers where high sulphur content fuels (such as coal, oil, substitute fuels, etc.) are used.

- (36) In a fluidised bed boiler, a first desulphurisation normally takes place inasmuch as limestone is as a rule already used in the combustion process, with the result that a second flue gas desulphurisation stage is necessary only in the case of the fuels mentioned in paragraph (35)²². Flue gas desulphurisation uses various technologies such as limestone technology, seawater technology, circulating fluidised bed technology and ammonia technology. A distinction is often drawn in the industry between dry (spray absorber technology), semi-dry (circulation of moistened lime residues) and wet technologies (so-called wet scrubbing technology involving the addition of a lime water emulsion).
- (37) In the parties' opinion, a further distinction or segmentation based on the various technologies must not be made since all technologies fulfil the same purpose. In the notification they state that limestone technology is by far the most common technology, accounting for approximately 85-90% of the European market. Other technologies are used, so they maintain, only in individual instances under special circumstances and even then they serve a similar purpose to a limestone FGD system.
- (38) The Phase I market investigation yielded evidence to suggest that a further segmentation or the definition of sub-markets based on the various technologies may be necessary²³. In particular, there was evidence indicating that, as regards (semi-) dry circulating fluidised bed flue gas desulphurisation - designated below by the name used by Lentjes of "CFB-FGD technology"²⁴, whereby any lime remaining in the ash after combustion is moistened and circulated – there is little or only very limited demand-side substitutability.
- (39) The parties concede in this connection that this technology has specific advantages in that part of the lime used in the incinerator to reduce the sulphur dioxide concentration is reactivated by the addition of water and the cleaning process may be much improved as a result. In such processes the further addition of lime or hydrated lime can be dispensed with, resulting in more efficient use of the available lime. This method is also used by AEE as part of turnkey fluidised bed plants under the trade name "Turbosorp".
- (40) During the in-depth Phase II market investigation, it was confirmed that all semi-dry flue gas desulphurisation methods generally produce comparable results and can sometimes even be replaced by dry flue gas desulphurisation methods. It came to light,

²² In the case of municipal waste incineration plants, on the other hand, because of the various pollutants in municipal waste, flue gas desulphurisation systems are as a rule used which remove pollutants other than sulphur (broad-spectrum cleaning systems). Since the parties do not, however, supply any separate flue gas desulphurisation systems for municipal waste incineration plants, but instead offer such systems only as part of turnkey plants, the market for flue gas desulphurisation systems is not affected in this case.

²³ Cf. the non-confidential reply by a competitor in the area of thermal treatment plants based on fluidised bed technology to the Commission's questionnaire of 9 July 2007, and the non-confidential version of the record of a telephone conference with that competitor on 25 July 2007.

²⁴ "Circulating fluidised bed flue gas desulphurisation", also known as "circulating dry scrubber technology" (CDS) or "dry circulating fluidised bed technology".

however, that, for technical and economic reasons stemming from the possibility of combining it with a circulating fluidised bed boiler, the CFB-FGD method is particularly well suited to a certain niche area of plants and is not readily substitutable in this area. The plants in question are fluidised bed plants with a capacity of less than 100 MWel in which fuels with a high sulphur content are used²⁵. They constitute an extremely small sub-segment of the market, but in the opinion of the two competitors who expressed concerns they offer very good prospects for the future. During the 2002-06 reference period, Lentjes fitted out two such plants and AEE constructed [...] plants with a comparable flue gas desulphurisation system (Turbosorp), which corresponds to approximately [...] % (Lentjes) and [...] % (AEE) of all contracts for flue gas desulphurisation systems awarded during that period²⁶. However, even on the narrowest possible market definition, namely that of a separate market for CFB-FGD flue gas desulphurisation systems, there are no competition concerns as there are enough alternative suppliers in the market, with the result that the question of a narrower market definition can ultimately be left open²⁷.

2. Relevant geographic market

- (41) The parties consider that the product markets mentioned in section 1 cover at least the European Economic Area (EEA).
- (42) In its earlier decisions in Cases IV/M.1552 – Babcock Borsig/AE Energietechnik and IV/M.1594 – Preussag/Babcock Borsig, the Commission took the view that the product markets for municipal waste incineration plants, flue gas cleaning systems for municipal waste incineration plants and flue gas desulphurisation systems were to be defined as being at least EEA-wide.
- (43) In its *Von Roll Inova/Alstom Power Conversion* decision the Federal Cartel Office was able to leave open the question whether the relevant geographic market for thermal treatment plants was to be defined as Community-wide or narrower since the conditions for prohibiting the merger were met in neither eventuality. The Federal Cartel Office established that, while on the one hand the distribution of market shares differed considerably from one region to another, on the other hand no economic, technical or linguistic access barriers could be found to exist between individual Member States. This was confirmed by the majority of participants in the market investigation.
- (44) The markets described are, at least as far as the supply of a complete plant or of an essential plant part is concerned, tender markets, irrespective of whether customers are public or private undertakings. Tenders take place at the international level²⁸. Despite

²⁵ Depending on the sulphur content and exhaust gas values that have to be observed, other (semi-) dry methods cannot compete in the case of such plants. The wet scrubbing method does not constitute a proper alternative in this area, being instead used as a rule in larger capacity plants such as coal-fired power stations owing to the associated higher investment costs and the necessary waste-water processing.

²⁶ A total of at least 102 desulphurisation systems were installed in power stations in the EEA during that period (all technologies); source: the projects included in the McCoy statistics, see *McCoy Report Scrubbers*, provisional version of 11 March 2007, Annex 19 to the notification of 29 June 2007.

²⁷ See the competition analysis at point V.2., paragraphs (119) *et seq.*

²⁸ Where the customers are public authorities, the tenders must be published in the *Official Journal of the European Union*.

some national peculiarities as regards the nature of tender procedures and the structure of customers (partly (only) public, partly (only) private operator companies or both), as well as suppliers' regional preferences and references, the larger suppliers are active almost throughout the EEA²⁹. According to competitors, it is perfectly possible to draw on reference projects in other European countries³⁰. This points to the market being EEA-wide. At the same time, however, the market investigation indicated that the market must be defined as being (as yet) no wider than the EEA, since customers from outside the EEA take part in tenders in the EEA only very rarely unless they have European subsidiaries, as is the case with, for example, the Japanese plant constructor Takuma (KAB Takuma, see paragraph (56)).

(45) These factors apply equally to all the relevant product markets. It is therefore concluded that the markets are EEA-wide.

V. COMPETITIVE ASSESSMENT

1. Horizontal effects

a) Market for municipal waste incineration plants

(46) According to the parties, each year a limited number of contracts are awarded for the supply of a complete municipal waste plant or of a plant part³¹. The parties state that from the time the contract for a project is awarded a period of some two to three years elapses before the project is signed off. They maintain that, for that reason, annual market shares give an inaccurate picture of the competitive situation and can provide no insight into the dynamics of this market.

(47) The parties state further that reliable turnover estimates are hard to come by in this area. They argue that projects in the area of thermal treatment plants (and in the area of flue gas desulphurisation systems) are performed over several years and that the volume of orders received must likewise be spread over several years and hence is translated into actual turnover only gradually over the course of subsequent years. Estimating annual market shares on the basis of turnover is therefore very difficult for the parties and would, in their opinion, not properly reflect market conditions. Data on awarded capacities must therefore be taken as a starting point and turnover be estimated on that basis with the help of conversion factors. This approach is also employed, so the parties say, in one of the leading market studies, where the emphasis is likewise placed on plant or plant part capacity (rather than on contract value)³². The

²⁹ A special case is that of CNIM/Martin, which have divided the EEA market between them on a geographic basis under a cooperation agreement (licensing of Martin's technology to CNIM for certain Member States).

³⁰ Differences in industry standards which in the past may have constituted a barrier to cross-border participation in tenders should be overcome by the Community harmonisation of industry standards (European Norms – EN).

³¹ On the basis of the data submitted, there are on average 22 contracts a year in the EU (an average of 9 contracts for turnkey plants and 13 for lots).

³² Vaccani, Zweig & Associates, *European Market Share Analysis of Thermal Waste Treatment Plants*, March 2007.

Commission takes note of the difficulties in relation to the submission of reliable turnover data, although an estimate on that basis would have been preferable.

- (48) In the Commission decisions adopted so far in this area, a five-year period (instead of annual market shares) is in principle taken into account. This was justified by the fact that the taking into account of market shares on an annual basis would have led to extreme variations in market shares and hence would not have provided a meaningful picture of those shares³³. In what follows, in the absence of other reliable information, market shares are represented using the calculation method proposed by the parties. For the purposes of this Decision, the Commission accepts this calculation method owing to the impossibility of supplying data in other ways. The focus of its assessment will nevertheless be on an analysis of tendering in this area.

Market shares of the parties and of competitors

- (49) During the 2002-06 reference period, according to the data contained in the Vaccani study 107 projects with a total combustion capacity of 19.6 million tonnes were put out to tender. Of these, 62 projects with a total capacity of 10.2 million tonnes were tendered as lots, while 45 projects (9.4 million tonnes) were turnkey plants.
- (50) The method used during the Phase I market investigation to calculate market shares, which followed the parties' proposal, was supplemented by additional information from the in-depth Phase II market investigation. The results for the parties' market shares in the market for municipal waste incineration plants with a capacity of more than 4.5 t/h during the 2002-06 reference period were slightly lower than the original figures³⁴. The following picture emerges³⁵:

Table 1: Market share distribution for municipal waste incineration plants 2002-06 – overall market, complete plants and plant parts

³³ See IV/M.1552 – Babcock Borsig/AE Energietechnik, paragraph 21, p. 5, and IV/M.1594 – Preussag/Babcock Borsig, p. 5.

³⁴ The decision to initiate Phase II cited the following figures for the parties: overall market - AEE [20-30]*%, Lentjes [15-25]*%; complete plants – AEE [25-35]*%, Lentjes [25-35]*%.

³⁵ Assuming – as competitors do – that there is a separate market for plants with a capacity of more than 8 t/h, in this hypothetical segment AEE would have a market share of [25-35]% and Lentjes one of [10-20]*%. Contrary to what competitors maintain, a narrowing-down of the relevant product market to projects with a capacity of more than 8 t/h would therefore not result in the parties being in a stronger position (see Table 1: [25-35]*% and [10-20]*%).

Company	Overall market	Complete plants	Plant parts
AEE	[25-35]*%	[30-40]**%	[20-30]**%
Lentjes	[10-20]*%	[20-30]**%	[5-10]**%
AEE/Lentjes	[35-55]**%	[50-70]**%	[25-40]**%
CNIM/Martin	[20-30]*%	[20-30]**%	[15-25]**%
Fisia	[10-20]*%	<5%	[15-25]**%
Vølund	[5-10]*%	0%	[15-25]**%
KAB Takuma	[5-10]*%	[10-20]**%	0%
Baumgarte	<5%	0%	<5%
Stiefel	<5%	<5%	<5%
Keppel Seghers	<5%	0%	<5%
Oschatz	<5%	<5%	0%
Vinci	<5%	<5%	<5%
Wulff	<1%	<5%	0%
Energos	<1%	<1%	0%

Source: Form CO and market investigation

- (51) The market shares reproduced in the above table for the period 2002-06 cover 27 projects for which AEE obtained the contract and 7 projects which were awarded to Lentjes³⁶.
- (52) The parties were thus the leader in the overall market – followed by Martin/CNIM, Fisia, Vølund, KAB Takuma and several smaller competitors – and especially so in the complete plant segment (with Martin/CNIM and KAB Takuma as further actors with market shares greater than 10%). In the plant part segment, the parties would likewise occupy the number one position post-merger, although several competitors such as Fisia, Martin/CNIM and Vølund are equally strong there.
- (53) CNIM/Martin is an important competitor in the supply of complete plants/combustion lines. CNIM (Constructions Industrielles de la Méditerranée) is active above all in France, Belgium, Spain and Portugal, as well as in central and eastern Europe and in Russia. It has a cooperation agreement with the German plant constructor Martin, which is active in the remaining Member States. Both are active both in basic and in detail engineering and have – according to their Internet sites – stable supply relationships with various manufacturers of essential plant components. Martin offers incineration systems based on grate technology, while CNIM offers both grate-fired systems and systems based on fluidised bed technology - the latter for the burning of substitute fuels, coal and biomass.
- (54) Fisia (Fisia Babcock Environment GmbH), which is registered in Germany, belongs to the Italian Impregilo group. It specialises in the engineering and construction of thermal waste treatment and flue gas cleaning plants. Its combustion systems are based on grate-fired technology. It offers both basic and detail engineering.
- (55) Vølund, a company registered in Denmark, is part of the US McDermott group and specialises in the waste-to-energy sector. It uses its own combustion systems, which are based on grate-fired technology, and also manufactures boilers. The company has its geographic centre of gravity in Scandinavia.

³⁶ It should be noted here that [...] of the seven projects awarded to Lentjes were subsequently cancelled and readvertised. They involved turnkey plants with a total capacity of [...] tonnes, or [...] % of the capacity put out to tender in this segment.

(56) KAB Takuma GmbH is active in power plant construction and concentrates on the development and implementation of advanced solutions for the generation, conversion and distribution of energy. This European company was created by the takeover of Kraftwerksanlagen Berlin (KAB) in 2005 by the Japanese firm Takuma Co. Ltd. According to its Internet site, the company specialises as general contractor in the construction of energy conversion systems up to 100 MW. It works as subcontractor for plants of all sizes. Through its parent company Takuma, which is already well established in the Japanese market for municipal waste incineration plants and can point to suitable reference projects there, KAB Takuma has gained additional know-how in waste incineration technologies, enabling it to successfully enter the market.

Tendering analysis

(57) In a tender market, sufficient competition can exist even with relatively few suppliers and market shares alone do not constitute an adequate basis on which to analyse the competitive situation. In its initial market investigation the Commission already performed an analysis of tenders during the period 2002-06. The starting point for the investigation was the Vaccani study³⁷, which lists all projects during that period. Both the parties and competitors were asked to indicate which tenders they had participated in and for which tenders they had been awarded the contract.

(58) During Phase I the Commission came to the conclusion on the strength of these data that on average fewer than three suppliers participated in a tender and that a further reduction in participants would give rise to competition concerns. It could not be ruled out, moreover, that, in those tenders in which both AEE and Lentjes had participated, the two companies had been close competitors and the planned merger would therefore eliminate a significant competitive factor.

(59) As part of the Phase II market investigation the Commission therefore analysed more closely those tenders and projects in which both AEE and Lentjes had taken part as bidders. The Commission asked competitors and customers to furnish additional details of individual tenders, in particular those in which both parties had participated. This involved [10-15]* out of the 107 projects: [...] for complete plants and [...] for lots. The turnkey plants accounted for [...] % of the incineration capacity put out to tender in this segment, and the lots [...] %.

Projects with AEE and Lentjes as bidders

(60) Closer examination of these [10-15]* tenders in which both AEE and Lentjes had participated revealed first of all that, besides the parties, Martin/CNIM, Fisia and KAB Takuma also competed on a regular basis. It transpired in particular that the frequency of participation by the last-named firms in these projects was higher than when compared with the overall market. On average, a larger number of competitors competed for these projects than for other tenders. Although the planned merger would reduce the number of competitors, it would do so especially in the case of projects for which an above-average number of companies were vying³⁸.

³⁷ Vaccani, Zweig & Associates, *European Market Share Analysis of Thermal Waste Treatment Plants*, March 2007.

³⁸ Following the planned merger, the average number of last-round bidders in the overall market would be 2.2, while in the case of projects in which both AEE and Lentjes participate it would be three.

- (61) In the area of tendering for lots, the parties faced each other in [...] of the tenders. [...] of the contracts was won by AEE, while the others went to Fisia ([...]) and Babcock Wilcox Vølund ([...]. In these [...] tenders, there took part, besides the parties, the following competitors: CNIM/Martin ([...]), Fisia ([...]), KAB Takuma ([...]), Baumgarte Standardkessel (2), Babcock Wilcox Vølund ([...]), Keppel Seghers ([...]) and Oschatz ([...]).³⁹
- (62) In the area of turnkey plants, there were during the reference period [...] tenders in which both parties participated; besides the parties, the following competitors also took part: Martin/CNIM ([...]), KAB Takuma ([...]), Fisia ([...]) and Vølund ([...]). [...] of the contracts went to AEE, [...] to Lentjes and [...] each to KAB Takuma and Martin/CNIM.
- (63) A closer analysis of the success rates (the ratio between tenders won and number of participations in tenders) of the individual companies showed that Lentjes's presence in tenders did not impair the success of AEE. On the contrary, while AEE's success rate in comparison with the overall market remained unchanged⁴⁰, Lentjes's fell from [...] to [...] in the case of those tenders in which AEE also participated. This observation holds true also for the turnkey plant segment ([...] compared with [...]).
- (64) Nor does an analysis of the second-placed competitor in the [...] of the [...] tenders that were won by AEE point to the elimination of a significant competitive factor. In [<5] cases Lentjes came second, while in the other [...] projects Fisia was runner-up.

Tenders – the overall market

- (65) The additional information obtained during the market investigation led to further conclusions going beyond the [10-15] projects over which the parties simultaneously vied.
- (66) It should be pointed out first of all that a tender procedure can generally be broken down into several stages. Following publication, companies either express their interest or else they may be asked directly by customers to submit a bid. On the basis of the bids then submitted, the customer often narrows down the choice of bidders, with whom the technical details of the project are first discussed in subsequent rounds before price negotiations are finally entered into. The in-depth Phase II market investigation showed that the average number of companies taking part in the first round is five. During the final round the average number of competitors left – as was established in the Phase I market investigation – comes to three. Focusing exclusively on the number of bidders in the final round does not, therefore, reflect the actual competitive situation as it does not take account of potential competitors. Customers have confirmed in this respect that, at the end of a tender procedure, three companies suffice to create enough competition⁴¹.

³⁹ The figure in brackets refers in each case to the number of tenders in which both these competitors and Lentjes participated.

⁴⁰ AEE's success rate was [...], all tenders combined ([...] for turnkey plants).

⁴¹ See the answers to question 9 in the questionnaire sent to planning and engineering companies on 27 August 2007.

- (67) As for the number of tenders individual companies participated in during the reference period ("participation frequency"), the greatest number was accounted for by Martin/CNIM at [...] % and AEE at [...] % of all projects, followed by Fisia [...], Vølund [...], Keppel Seghers [...], Lentjes ([...]) and KAB Takuma [...]. All other suppliers came in at less than 10%. If a distinction is drawn between turnkey plants and plant parts, the following picture emerges. In complete plants Martin/CNIM [...] led AEE ([...]), followed by Lentjes ([...]), Fisia [...], KAB Takuma [...], Keppel Seghers [...] and Vølund [...]. In the case of lots, Lentjes was active in only [...] of tenders, the most active being Martin/CNIM [...], AEE ([...]), Fisia [...], Vølund [...] and Keppel Seghers [...]⁴².
- (68) The Commission concludes from this that AEE and Martin/CNIM are close competitors on a participation frequency criterion, having participated in by far the most tenders and having faced each other as competitors on a regular basis, i.e. in 43 of the 107 projects. Lentjes's presence, on the other hand, does not differ significantly from that of other competitors such as Fisia, Vølund, Keppel Seghers or KAB Takuma.
- (69) Detailed analysis of the projects won by different competitors showed further that these had no special features such as might suggest that companies specialised in certain types of tender. Although each firm possesses certain strengths, e.g. in the area of combustion technology, tenders are as a rule organised on a functional basis - that is to say, no particular technology is specified for the performance level (e.g. hourly throughput, yearly throughput, calorific value, bunker volume, flue gas emission values) - which means that all established competitors are able to carry out major projects. In particular, no projects could be identified in which the parties possessed a definite advantage or in which their competitors were unable to participate. The above-average number of competitors for those projects in which both parties participated suggests the opposite.
- (70) In conclusion it can be said that, according to the in-depth analysis of tenders, even after the parties' planned merger, both in the complete plant segment and in the plant part segment there would be a sufficient number of competitors capable of participating in tenders. The projects in which Lentjes and AEE simultaneously took part did not possess any special features that conferred a comparative advantage on the parties, nor was there any evidence to suggest that Lentjes might have been a constraining competitive factor for AEE.

Ranking of suppliers by customers and experts

- (71) The Commission supplemented its tendering analysis by asking customers to assess the various competitors. As part of the in-depth market investigation customers were asked to rank competitors relative to Lentjes according to several criteria, such as financial strength, reference projects, combustion technologies, engineering know-how and experience in project management. Respondents were also given the opportunity to describe their experience with and knowledge of competitors and to add any further details if they so wished. The assessment scale ran from -2 ("markedly weaker than

⁴² For the parties the absolute figures are as follows: AEE participated in [...] tenders ([...] for turnkey plants and [...] for lots), while Lentjes submitted bids for [...] projects ([...] turnkey plants and [...] lots).

Lentjes") to +2 ("markedly stronger than Lentjes"). 0 was the median value ("comparable to Lentjes").

- (72) AEE, Martin/CNIM, Fisia and Vølund were ranked on all the above-mentioned criteria as stronger players than Lentjes⁴³. Overall the replies indicated that the strongest competition to AEE comes, not from Lentjes, but from Martin/CNIM and Fisia. In this ranking Lentjes is more or less on a par with Baumgarte and slightly ahead of KAB Takuma.
- (73) The engineering consultancies that were questioned, being active as experts and advisers to customers, confirmed this situation. Here, too, AEE, Martin/CNIM and Fisia were named as the leading companies, followed by Lentjes.
- (74) The replies from customers and experts thus coincided with the picture painted by the tendering analysis. Not Lentjes, but Martin/CNIM and Fisia are close competitors to AEE, Lentjes being on a par with Vølund, Baumgarte and KAB Takuma.

Competitive constraints on turnkey plant suppliers from lots

- (75) As already mentioned in the section on market definition, projects in the market for municipal waste incineration plants are awarded both as lots and as turnkey works (complete plants or combustion lines). The Phase I market investigation showed that the possibility of tendering jointly for a turnkey project as main contractor and of being considered a serious market player depends essentially on a company's reference projects and its financial background.
- (76) In its decision to initiate Phase I the Commission came to the provisional conclusion that in the competition analysis of the market for municipal waste incineration plants a distinction should be drawn between the segments of complete plants and of lots: on the one hand, not every lot supplier possesses the financial strength needed to guarantee a turnkey plant; and on the other, customers, in particular municipalities, which only seldom enter the market – every 10-15 years or so – express a preference for turnkey solutions as they lack the experience and knowledge needed to carry out the interface engineering on their own.
- (77) The in-depth Phase II market investigation showed, however, that significant competitive pressure is exerted on turnkey suppliers by the possibility of awarding lots. Despite having a preference for a turnkey provider, customers can alternatively switch to a lot solution and either entrust the interface engineering to an outside consultant or perform it in-house.
- (78) The market investigation showed that private-sector companies in the area of waste management, such as Remondis AG, Suez, Vattenfall or E.ON, have sufficient in-house knowledge and experience to be able to perform the interface engineering themselves. These companies indicated during the course of the market investigation that they either normally divide up turnkey plants into lots so as to achieve more

⁴³ The average assessment of the most important competitors was as follows (the figures in brackets denote the assessment for the criteria in the following order: reference projects, financial strength, combustion technologies, engineering know-how and project management experience): AEE (1 1.1 1.1 0.5 0.6), Martin/CNIM (1.1 0.3 1.2 0.7 0.3), Fisia (0.4 0.2 0.9 0.5 0.5), Vølund (0.3 0 0.6 0.6 0.1) and KAB Takuma (-0.3 0.4 -0.6 0.1 0).

competition, better prices and a broader choice of technical options⁴⁴ or else they resort to this alternative if an insufficient number of companies take part in a tender for a turnkey plant⁴⁵.

- (79) Customers (such as municipalities) which order waste incineration plants on a one-off basis, being generally without any engineering capacity of their own, may also divide up a turnkey project into lots while calling on the services of outside engineering consultancies for the planning, putting out to tender and implementation of the project.
- (80) The engineering consultancies that were questioned confirmed that not only do they allow customers to acquire knowledge about the market but they also structure the tendering process and evaluate the bids from both a technical and a commercial point of view. In addition, they provide the interlinking engineering services which ensure that the individual plant parts fit and work together. In the event of tenders, customers are thereby allowed to choose between either turnkey plant constructors or a combination of plant part suppliers⁴⁶.
- (81) The tendering analysis also showed that customers first of all weigh up how many competitors are bidding together for a turnkey plant before deciding whether unbundling the project into individual lots might offer a more economical alternative. Two projects that were put out to tender in 2007 illustrate this manner of proceeding. A customer expected during the course of an ongoing tender procedure only a small number of bidders for a turnkey plant and therefore decided to invite tenders for lots⁴⁷. In Norway the company BIR Privat AS did the opposite and put a project out to tender as a turnkey plant on the ground that with six suppliers there was sufficient competition⁴⁸.
- (82) On the strength of these answers the Commission came to the conclusion that dividing a plant into individual lots constitutes a credible alternative to inviting tenders for a turnkey plant and hence the suppliers of plant parts are a constraining competitive force for suppliers of turnkey plants.

New entrants and "alternative" turnkey suppliers

- (83) During the Phase I market investigation the Commission came to the conclusion that reference projects, financial strength and the capacity to assume turnkey responsibility are decisive as far as entering the market for municipal waste treatment plants is concerned. The submission of reference projects is an extremely important prerequisite for admission to a tendering procedure. Such projects are indicative of experience and technical know-how. Companies wishing to tender for a turnkey plant must also be able to provide suitable guarantees. This is not normally possible without the corresponding capital or the backing of a financially strong group. Patents, on the other

⁴⁴ See, for example, the non-confidential answer from the E.ON subsidiary BKB AG dated 31 August 2007.

⁴⁵ See the non-confidential answer from Suez dated 12 July 2007.

⁴⁶ See the answers to the questionnaire sent to planning and engineering companies on 27 August 2007.

⁴⁷ With the result that some companies competed for several lots and thereby indirectly made a bid for the turnkey plant, whereas other competitors bid for individual lots. Cf. the confidential answer provided during the Phase II market investigation on 5 September 2007.

⁴⁸ See the non-confidential answer dated 28 August 2007.

hand, do not seem to present an obstacle to market entry. The entry barriers can therefore be overcome only by companies which can at least demonstrate experience and expertise in one of the above-mentioned areas (financial strength, references and turnkey responsibility).

- (84) This assessment was confirmed during the course of the in-depth Phase II market investigation. It transpired that credible market entry by the following companies had either taken place or was to be expected:
- (i) companies with the necessary technology, financial strength and reference projects which are currently active outside the EEA;
 - (ii) companies which are active within the EEA but which focus on a specific region or a specific market segment; and
 - (iii) companies which possess turnkey plant experience in neighbouring markets.

Recent market entry

- (85) During the Phase I market investigation, only KAB Takuma was mentioned as being a new competitor for municipal waste incineration plants. A few respondents were sceptical, however, about whether, despite its strong finances and technological base, KAB Takuma could be a credible competitor in Europe as reference plants were lacking. The in-depth Phase II market investigation nevertheless showed that in a relatively short space of time KAB Takuma had won three contracts for turnkey plants from such renowned customers as Vattenfall and Suez/Sita, establishing the company's reputation. The engineering consultancies that were questioned named – with one exception – at least four credible suppliers of turnkey plants: AEE/Lentjes, Martin/CNIM, Fisia and KAB Takuma. As already indicated above (see paragraphs (71) *et seq.*), customers see in KAB Takuma a competitor whose strength places it more or less on a par with Lentjes.
- (86) Following its takeover by the Singapore-incorporated Keppel Corporation and its completed reorganisation, the former Belgian company Seghers is once more active in the EEA. The company has its own grate technology and reference projects in Europe. In the past two years it has won three projects (in Finland, the Netherlands and Italy). It has also got as far as the final round alongside one more participant in an ongoing tender for a turnkey plant, beating established competitors in the process.

Potential market entry

- (87) It also became clear during the course of the in-depth market investigation that previously regionally active competitors must likewise be considered potential competitors for turnkey plants. One example is Termomeccanica, a turnkey supplier traditionally active in Italy. Owing to declining demand in its domestic market, Termomeccanica has, in its own words, redeployed and started to take part in tenders outside Italy⁴⁹. In July 2007 it was awarded its first contract for a turnkey plant outside Italy (in France) and it has taken part in further tenders in the Czech Republic, France and Luxembourg. It maintains that it can take part in [...] * tenders and execute [...] * contracts for turnkey plants a year⁵⁰.

⁴⁹ Termomeccanica possesses its own grate technology (water-cooled and air-cooled grates) for medium-sized plants and uses under licence a technology owned by Kawasaki Industries of Tokyo for large plants.

⁵⁰ See record of telephone call with Termomeccanica on 19 September 2007.

- (88) Traditional suppliers of plant parts can likewise be considered potential competitors in the area of turnkey plants. It is not uncommon to see these suppliers team up with other companies to form consortia and to bid for a turnkey plant. One example is the consortium formed by Baumgarte with ThyssenKrupp Xervon Energy and other partners, which won a contract for a turnkey plant in Moscow. ThyssenKrupp Xervon Energy is said to be capable on its own of supplying turnkey plants as it possesses the financial strength, reference plants, technology and reputation of former Lurgi-Lentjes Services. [...] * Vølund, one of the leading suppliers, has until now concentrated on Scandinavia and on lots but is currently capable of expanding at any time with a turnkey plant offering into neighbouring markets.
- (89) Companies whose core competence hitherto lay in turnkey provision in neighbouring product markets were also identified in the in-depth market investigation as potential competitors. One customer reported on an ongoing tender procedure in which a turnkey plant constructor (Litwin, part of the Bateman group) which had previously been active mainly in the oil business and which had little experience in the waste-to-energy field would be at least runner-up as part of a consortium⁵¹. In the United Kingdom, Earthtech (a pure turnkey supplier of layout and interface engineering with no in-house technology) has already won a contract for a turnkey plant and participated in more tenders.
- (90) Entry into neighbouring product or geographic markets ought also to be made easier as a result of the market's centre of gravity shifting in future away from Germany (approximately 30% of the volume of orders)⁵².
- (91) This will result in firms located in Germany, such as AEE, Lentjes, Martin or Fisia, losing part of their home advantage (based on language, numerous reference projects and local presence), as they will have to adjust like other suppliers to conditions in the new core regions (e.g. southern and eastern Europe).
- (92) Overall, the in-depth Phase II market investigation showed that, besides established competitors, new competitors are becoming increasingly active in the market for municipal waste incineration plants and hence that no significant change in the competitive situation is to be expected post-merger.

⁵¹ In its 2006 annual report, Litwin mentions three waste-to-energy contracts awarded to the company in France. Litwin says it intends to expand further into this growth market (See *2006 Annual Report*, pp. 14 *et seq.*).

⁵² For the reasons why the market is shifting away from Germany, see paragraphs (100) *et seq.*

Capacity

- (93) During the Phase I market investigation several competitors expressed concerns about the planned merger. They were worried among other things about the additional capacity AEE would acquire as a result of the merger. This capacity would enable AEE to attain a dominant position in the market to which competitors would be unable to react for want of spare capacity. The parties' strong position would afford them increased input opportunities in upstream markets (e.g. for pressure components) and hence enable them to eliminate competition in the long term⁵³.
- (94) It was therefore examined during the course of the in-depth Phase II market investigation whether the planned transaction could in fact give the parties this capacity advantage. All competitors were therefore asked to inform the Commission how large their existing engineering capacities were (on the basis of number of engineers and project managers) and of the scope for increasing them in the short term.
- (95) The distribution of capacities broadly reflects market shares during the period 2002-06. The parties accordingly possessed [35-40]*% of the available capacity, followed by Martin/CNIM [...]*%, Fisia [...]*% and KAB Takuma [...]*%. These shares are not indicative, however, of a dominant position on the part of the parties.
- (96) As already indicated in the market share analysis, the markets for waste incineration plants are tender markets, with the result that each project constitutes a separate market with its own features. The market investigation showed that all competitors weigh up very carefully which tenders they should take part in. Initial soundings of customers are carried out well in advance of the official call for tenders, account being taken not only of available capacity, but also of such factors as knowledge of the customer, the technology required, the project's likelihood of success and financing.
- (97) Each competitor seems therefore to plan its capacities in the medium to long term dependent on projects: companies rank projects internally according to their own criteria and assign capacity to them accordingly. On the basis of this planning process and its timetable, projects with a high likelihood of success may arouse interest among many competitors. If necessary – so the market investigation showed – new capacities can be brought on stream at short notice. One competitor mentioned the possibility, where necessary, of increasing its capacity temporarily by up to 50%.
- (98) Competitors also voiced the fear that the parties might be able post-merger to tie competitors' capacity in to projects with low margins, only then to achieve monopoly prices with their own spare capacity in the case of the remaining tenders. The parties could by aggressively bidding for tenders squeeze their competitors' margins without obtaining the contract themselves. For a variety of reasons, however, this line of argument cannot readily be followed. First of all, the parties would have to make a

⁵³ On the question of the upstream market, see paragraphs (110) *et seq.* The same competitor who believes that the merger would lead to the creation of a dominant position for the parties also voices concerns about coordinated effects. It should be pointed out here that market dominance by a firm and simultaneous coordination are mutually exclusive. Nor has the Commission found any evidence to suggest that the merger might strengthen or facilitate coordinated effects. The market shares are not symmetrical, projects are heterogeneous (geographical conditions, differences in waste, civil works) and demand is shifting to new regions. Last but not least, new competitors are entering or are capable of entering the market.

credible bid with thin margins in order to be able to squeeze the price for their competitors. They would then run the risk, however, of winning the tender with their low bid. What is more, because of the strong demand for municipal waste incineration plants, there would be no inducement for competitors to bid “cheaply” for projects as there are a sufficient number of other projects available.

Lentjes’s future market position

- (99) During the course of the in-depth market investigation it also came to light that Lentjes’s future market position – absent the planned merger – cannot be compared with the years 2002-06. Lentjes’s past market position does not appear to adequately reflect the current/future position.
- (100) Both Lentjes and AEE used to regard Germany as an important, if not the most important, market. This can be seen not only from their high market shares, but also from the disproportionately high rate of participation by AEE and Lentjes in tenders in Germany. While in Germany between 2002 and 2006 36 out of 108 projects were put out to tender (33%), Lentjes’s participation rate was 50% ([...]* out of [...]*) and AEE’s 47% ([...]* out of [...]*).
- (101) The Phase II market investigation revealed that it was in the 1990s that municipal waste was first incinerated in Germany instead of being disposed of untreated in landfill sites. This development was supported Europe-wide by Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste⁵⁴, which contains *inter alia* a prohibition on the landfilling of untreated waste. While the German waste-to-energy market has already reached the end of its growth phase, the rest of Europe still has to catch up. It can therefore be assumed that in future the German waste-to-energy market will decline in importance in relative terms. The market is expected to grow above all in southern and eastern Europe⁵⁵. The market expert Vaccani thus states that in the years ahead not only will the volume of orders be distributed among a larger number of countries but also the German share of orders in the EEA will diminish⁵⁶.
- (102) This was confirmed by the in-depth market investigation. Competitors were asked about as yet unawarded or expected projects. In all, they mentioned 68 projects, of which 21, and hence less than one third, in Germany. This market development ought to weaken the parties’ relative market position in the EEA, as they have been traditionally strong in Germany where they enjoy a high degree of recognition.
- (103) Hence although most of the German-speaking customers surveyed during the market investigation had heard of Lentjes, customers outside the German-speaking area were not always familiar with the name.
- (104) This shift in the market’s centre of gravity - and its impact on Lentjes’s degree of recognition – therefore weakens the company’s competitive position vis-à-vis competitors who are already active in the new core markets and who possess

⁵⁴ OJ L 182, 16.7.1999, p. 1.

⁵⁵ See ECOPROG, "*Der Markt für Müllverbrennungsanlagen in Europa*", Cologne/Oberhausen 2005, p. 34.

⁵⁶ See Vaccani, "*Marktpotential und –strukturen der Abfallverbrennung in Europa*", address given on 31 January 2007 to the Berlin waste management and energy conference.

references and local networks, and at the same time reduces the entry barriers for new competitors.

- (105) In assessing Lentjes's market position, account must also be taken of the fact that during the last two years, despite its having participated actively in tenders for turnkey plants, the company has been unable to win any further projects. This has done nothing for Lentjes's reputation as a competitor in the market. A large Germany-based operator in the area of municipal waste incineration plants has said in this connection that Lentjes was scarcely visible in the past.
- (106) Financial strength is an important characteristic that a turnkey supplier must possess if it wishes to be seen as a credible competitor as only then can it give the necessary guarantees and fulfil customers' liability terms. Lentjes was able in the past to give such guarantees. Several factors point, however, to this being no longer the case in future should Lentjes continue to belong to the GEA group.
- (107) GEA AG, Lentjes's parent company, has tried repeatedly in recent years to restructure Lentjes and make it profitable, but to no avail. After a loss in 2005, Lentjes again posted a loss of EUR 346 million in 2006, with the result that GEA AG recorded a loss of EUR 288 million and was unable to pay a dividend.
- (108) Hence GEA's decision to divest itself of Lentjes. The public and GEA's own shareholders were notified accordingly⁵⁷.
- (109) It is more than doubtful whether Lentjes would be able in the absence of the planned merger with AEE to build to the same extent as in the past on GEA's financial strength and to continue to compete as strongly in the area of turnkey plants in particular.

Strengthening of the position in the market for municipal waste incineration plants through vertical integration in the area of boiler pressure components

- (110) During Phase I a competitor of the parties in the downstream market for municipal waste incineration plants expressed concerns about the strengthening of the parties' position in that market following AEE's vertical integration in the area of boiler pressure components (upstream market). These concerns were that AEE (or its subsidiary Duro Dakovic) might in future supply boiler pressure components only internally for projects of the merged AEE/Lentjes, thereby giving that entity a competitive edge in the downstream municipal waste plant market, where its market position would be further strengthened. Moreover, AEE/Lentjes might have an increased need for boilers (which its own manufacturing facilities could not meet) which because of its buying power it might source from other boiler manufacturers, and this in turn might lead to bottlenecks for smaller competitors in the downstream market for municipal waste incineration plants.
- (111) The market investigation showed, however, based on data from customers and competitors, that a particular boiler manufacturer is sometimes specified in the tender specifications, so for that reason alone the parties could not source their entire boiler pressure component requirements internally, having instead to follow the customer's instructions.

⁵⁷ See GEA's 2005 annual report and presentation on the first half of 2006.

(112) In all other cases, and supposing Lentjes were to obtain boilers in future from Duro Dakovic alone, capacities would be freed up among those boiler manufacturers by which Lentjes was hitherto supplied. What is more, the AEE subsidiary Duro Dakovic has a share of only about [5-10]*% of the (EEA-wide) boiler pressure component market. Further competitors are, for example, Alstom Power, Rafako, SES Tlmačce and Sefako.

Intermediate conclusion

(113) The merger accordingly gives rise to no competition concerns in the market for municipal waste incineration plants.

b) Market for thermal treatment plants (fluidised bed technology) with a capacity of up to 200 MWel

(114) During the 2002-06 reference period both parties offered for sale thermal treatment plants based on fluidised bed technology with a capacity of up to 200 MWel. Lentjes was able, however, to win only one contract for a (stationary) fluidised bed plant with an electrical generating capacity of approximately 1 MWel and two projects based on ROWITEC technology⁵⁸. If the ROWITEC plants are included in the market for fluidised-bed-technology-based plants with a capacity of up to 200 MWel, then the parties had according to their own estimates during the reference period an EEA-wide joint market share of approximately [25-35]*% (AEE [20-30]*%, Lentjes [5-10]*%). Their main competitors are Foster Wheeler (approximately [30-40]*%) and Metso/Kvaerner (approximately [30-40]*%). Further competitors, each with an approximately [<5]*% market share, are, according to the parties, Andritz and HS Energieanlagen⁵⁹.

(115) Foster Wheeler is an international company active in plant construction in the areas of energy, environmental and industrial technology. Its utility boilers business supplies, among other things, fluidised bed boilers or complete fluidised bed plants with capacities of both up to and above 200 MWel. In the EEA, Foster Wheeler operates from its locations in Varkaus (Finland) and Madrid (Spain).

(116) Metso/Kvaerner, which resulted from the acquisition by Metso of Aker Kvaerner's plant construction business⁶⁰, is an international company active in the areas of engineering and plant construction, with its main focuses being in the paper, cellulose and energy sectors. The Metso Power division supplies fluidised bed plants of all sizes. Metso Power's principal locations in the EEA are in Tampere (Finland) and Göteborg (Sweden).

(117) The Andritz group is a globally active technology company headquartered in Graz, Austria. It develops high-technology production systems and industrial process

⁵⁸ During the reference period Lentjes took part in five tenders for fluidised-bed-technology-based plants with a capacity of up to 200 MWel.

⁵⁹ Parties' market share estimates based on plant capacity (MWel), using contract notices recorded by McCoy during the reference period. In the parties' opinion, however, the plants included by McCoy in its study, based as it was on data volunteered by market operators, can be regarded as only a minimum figure, as in their experience not all projects were registered during the reference period.

⁶⁰ See Commission decision of 12 December 2006, Case M.4187 – Metso/Aker Kvaerner.

solutions *inter alia* for the paper and cellulose industry. In this context it supplies, among other things, dryers (e.g. for sewage sludge) based on fluidised bed technology and – starting about a year ago – stationary fluidised bed combustion plants.

- (118) HS Energieanlagen is a Freising-headquartered German company which supplies mainly fluidised-bed-technology-based biomass heating plants.
- (119) The in-depth Phase II market investigation, during which it was examined in particular whether and if so to what extent this market might be divided into further submarkets or segments, did not produce any evidence of anticompetitive horizontal effects due to the planned merger. It confirmed that, as far as the technologies applied are concerned, a distinction can be drawn to a certain extent between stationary and circulating fluidised bed solutions and ROWITEC. ROWITEC technology is currently offered in the EU only by Lentjes (under exclusive licence from Ebara), while the licensor Ebara itself offers ROWITEC plants only in Switzerland and outside Europe. In this respect there are, however, no competition concerns – and in particular no merger-specific competition concerns – as this technology can be replaced, depending on fuel type, either by grate-fired technology (using, for example, pre-sorted municipal waste), or by fluidised bed technologies.

2. Vertical effects

- (120) The Phase I market investigation produced evidence to suggest that, as a result of the planned merger and the resulting vertical integration of Lentjes's flue gas desulphurisation business into the A-Tec group, competition problems might arise in the neighbouring market for fluidised bed plants. Two competitors in the market for fluidised bed plants indicated that only two companies offered this technology at present in Europe - Alstom (under the name "NID" or "FDA") and Lentjes (under the name "CFB-FGD" or "Circoclean"). In these competitors' opinion, as a result of the merger between Lentjes and AEE the last supplier to be able to offer this technology to third (non-vertically-integrated) suppliers of fluidised bed plants would be integrated into a larger, vertically integrated group⁶¹. However, despite also offering thermal treatment plants based on fluidised bed technology, Lentjes was able during the reference period to win only [...] contract for a stationary fluidised bed plant and two contracts for ROWITEC plants and therefore had an incentive to supply its competitors in the neighbouring market with flue gas desulphurisation systems.

a) Competitive situation in the upstream market

- (121) The parties consider that there is an overall market for flue gas desulphurisation systems irrespective of the underlying desulphurisation method. This also corresponds to previous Commission practice⁶². In such a market the parties had, by their own estimates, during the 2002-06 reference period a combined market share of approximately [25-45]*% (AEE: [15-25]*%, Lentjes: [15-25]*%), while their strongest competitors had market shares of approximately [20-30]*% (Alstom), [15-25]*%

⁶¹ Alstom, which likewise has CDS technology at its disposal, is already a vertically integrated competitor in the neighbouring market for thermal treatment plants based on fluidised bed technology, but it supplies only plants with capacities of more than 300 MWel.

⁶² See Cases IV/M.1552 – Babcock Borsig/AE Energietechnik, decision of 30 June 1999; and IV/M.1594 Preussag/Babcock Borsig, decision of 17 August 1999.

(Fisia), [10-20]*% (Hitachi Power) and [5-10]*% (Mitsubishi). Further competitors in this area include Wulff, LAB (CNIM group) and FLSmidth.

- (122) Alstom is an internationally active company with its main focus on transport and energy infrastructure. The Alstom Power division offers a broad range of products and services in the area of energy generation, to which belong *inter alia* flue gas desulphurisation systems and circulating-fluidised-bed-based plants. Alstom is, however, currently not active in the EEA in the market for fluidised bed plants with a capacity of less than 200 MWel, offering instead only plants with capacities of more than 300 MWel⁶³.
- (123) Fisia (Fisia Babcock Environment) supplies, besides municipal waste incineration plants, flue gas cleaning and flue gas desulphurisation plants; it is not active in the neighbouring market for fluidised bed plants with a capacity of less than 200 MWel.
- (124) Hitachi (Hitachi Power Europe) designs and manufactures essential components for fossil fuel power plants, including flue gas desulphurisation systems. It is not active, however, in the downstream market for fluidised bed plants with a capacity of less than 200 MWel, but instead supplies plants based on other technologies (e.g. grate firing and dust firing).
- (125) Mitsubishi (Mitsubishi Heavy Industries) is active both in the area of flue gas desulphurisation and in that of fluidised bed plants, but during the reference period it carried on in the EEA no business worth mentioning in the downstream market for fluidised bed plants with a capacity of less than 200 MWel.
- (126) Wulff is active in the areas of energy and environmental technology and supplies, in addition to municipal waste incineration plants, flue gas cleaning and flue gas desulphurisation plants based on so-called Graf-Wulff technology.
- (127) LAB forms part of the CNIM group, which is active in the areas of environmental technology, transport technology and high-performance components for the aerospace industry. It provides turnkey solutions in the areas of flue gas cleaning and flue gas desulphurisation for grate- and fluidised bed-fired incineration plants as well as for plants with firing systems based on liquid or gaseous fuels. Neither LAB nor any other CNIM group company nor Martin, which cooperates with CNIM, is active in the downstream market for fluidised bed plants with a capacity of less than 200 MWel.
- (128) FLSmidth is a Danish plant constructor in the area of cement and minerals; in its alternative fuels business area it offers *inter alia* substitute fuel and biomass power plants as well as flue gas cleaning and flue gas desulphurisation systems.

b) Downstream market: No possibility that the transaction might foreclose access to a major input in the upstream market

⁶³ The background to this is Commission Decision 2005/418/EC of 7 July 2004 (OJ L 150, 10.6.2005, p. 24) on aid measures implemented by France for Alstom. These measures were authorised subject to conditions, among which were the divestment by Alstom of its industrial boilers business (including fluidised bed plants up to 300 MWel output) and the commitment by Alstom not to engage in any business activity in this area for a certain (confidential) period.

*Access to a major plant component*⁶⁴

- (129) Two competitors with the parties in the downstream market who raised objections to the planned merger on competition grounds had concerns (competitor 1) regarding the availability of flue gas desulphurisation systems on the open market for multifuel plants with a capacity of over 100 MWel and (competitor 2) regarding similar plants with capacities of about 30-50 MWel .
- (130) Competitor 1 argued that fluidised bed plants with capacities below 100 MWel did not as a rule need any separate flue gas desulphurisation system. The mix of fuels in such plants did not usually have any great sulphur content, and where the flue gas did contain a larger measure of sulphur (for example where coal was being burnt along with other fuels), adequate desulphurisation was ensured by the reaction that took place in the combustion process itself, to which limestone was added. In addition, any further desulphurisation could be carried out using other methods, such as dry desulphurisation. But plants with larger capacities, over 100 MWel, almost always used fuels with high sulphur contents, and these required efficient additional desulphurisation. Competitor 2 argued, on the other hand, that there were projects under 100 MWel that needed separate and efficient desulphurisation, for example where the fuel mix could be expected to have a high sulphur content, or where the plant had to comply with particularly strict waste gas limits.
- (131) The in-depth Phase II market investigation has shown that in power plants with relatively low capacities, of 100 MWel or less, the CDS-FGD technology offered by the parties, but also by other competitors in this market⁶⁵, can in the vast majority of cases be replaced by another dry or semi-dry flue gas desulphurisation method. Which method of flue gas desulphurisation is best suited to a project depends to a great extent on the individual specifications, especially the expected fuel mix, and on the waste gas limits. Where the fuel has a fairly low sulphur content, as it has in most cases, the dry methods are in fact often at an advantage, because their investment and operation costs are usually lower than those of the CDS-FGD method, and with fuel of this kind they achieve the desired result.
- (132) There is just one niche where for financial reasons the CDS-FGD method does not appear to be easily replaceable, namely in fluidised bed plants with capacities below 100 MWel in which the sulphur content of the fuel to be burnt is high. In larger plants, with capacities above 100 MWel, most of the customers and competitors questioned said that the wet desulphurisation methods could also replace the CDS-FGD method, because there the additional costs of the wet method were of no decisive significance in relation to the total costs⁶⁶.

⁶⁴ See the draft Commission guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, paragraph 33, available (in English only) at http://ec.europa.eu/comm/competition/mergers/legislation/draft_nonhorizontal_mergers.pdf.

⁶⁵ See paragraph (135).

⁶⁶ The market players questioned said that the flue gas desulphurisation system generally accounted for 15-20% on average of the cost of a new plant, while the firing unit accounted for some 45-55% on average of the total price; according to these players, therefore, the decision to award a turnkey contract depended primarily on the offer made for the firing unit, and not on the type of flue gas desulphurisation. In the decision on the flue gas desulphurisation system for a plant with a larger capacity, according to the customers and competitors, the question of waste water processing and smoke from the flue was a minor

The parties do not have market power in the upstream market

- (133) The Commission also considered whether and to what extent the parties might have special market power after the merger in the upstream market for flue gas desulphurisation systems, as a result of the indispensability of the CDS-FGD method in certain plants⁶⁷. Competitors 1 and 2, who expressed objections, took the view that after the merger the CDS-FGD method would no longer be offered by any independent providers, that is to say providers who were not vertically integrated.
- (134) In the course of the in-depth Phase II market investigation the Commission contacted customers, the direct competitors in the upstream market (in particular Alstom and the firms named by the parties as alternative suppliers of this technology), competitors in the downstream market for fluidised bed plants, and independent engineering consultancies which advise customers making calls for tenders.
- (135) The answers to the questionnaires and the subsequent telephone interviews confirm the parties' submission that alongside Alstom and Lentjes there are other alternative suppliers of this technology on the open market in the EEA. These alternative suppliers are Wulff (the Graf-Wulff technology) and FLSmidth.⁶⁸
- (136) The Graf-Wulff technology (also known as "back circulator" technology) is regarded by market players as very similar to the Lentjes technology. In addition to the technical similarities – both technologies are based on the fluidised bed process – it may be pointed out that the developer of the Graf-Wulff technology first worked for Lurgi, which previously also belonged to the GEA group, before moving to Wulff, where he developed the technology further⁶⁹. According to the information supplied by the parties and by Wulff, which has been confirmed by market experts, there are numerous reference projects for this technology, because Wulff was one of the first firms outside what is now the GEA group to offer this technology on the market.
- (137) The technology used by FLSmidth is a semi-dry process which is also offered together with a fluidised bed process. FLSmidth also has the requisite reference projects and is regarded by market players as a credible supplier.
- (138) Alongside the parties and Alstom, therefore, there are at least two other suppliers of this technology who are known to the market as credible competitors. In addition, depending on the fuel mix and waste gas limits, there are other wet and semi-dry methods that may be considered substitutable, such as those offered by LAB, Fisia, and other small and medium-sized enterprises.

consideration, because such plants were in any event usually built only in specifically designated areas (such as industrial zones) and the necessary infrastructure was often already available, in the form of treatment works for example, or could be built easily at reasonable cost.

⁶⁷ See the draft Commission guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, paragraph 34.

⁶⁸ The answers also confirmed the parties' submission that AEE already offered a semi-dry flue gas desulphurisation technology similar to the CDS-FGD method based on a fluidised bed. Competitors 1 and 2 were unable to comment, because AEE has so far offered this system only together with a fluidised bed firing system planned likewise by AEE, so that these competitors have not had access to the AEE technology.

⁶⁹ At that time the flue gas cleaning and flue gas desulphurisation businesses of what is now the GEA group were still handled by Lurgi.

- (139) Customers, on the other hand, most often advised by independent consultants, are increasingly seeking separate tenders for the flue gas desulphurisation component, in order to identify the optimum solution for their projects and also to enable small and medium-sized enterprises to make bids. Market players have reported growing dissatisfaction with tenders for turnkey plants. It is argued that since tenders for turnkey projects are often submitted by firms whose core competence is fluidised bed firing, it cannot be assumed that their tenders will necessarily comprise the best and most advantageous solution for the flue gas desulphurisation component. And in comprehensive projects of this kind a substantial proportion of costs is accounted for by the firms' overheads. These costs can be saved by separate tendering. Any extra costs due to the interface risk can be kept to a minimum, it is felt, if the technical interfaces between the firing unit and the flue gas desulphurisation are defined precisely. Lastly, competitors 1 and 2 fear that competitors in the downstream market may see their access to the products of the upstream market rendered more difficult; but with separate tenders of this kind, it is argued, the situation they fear will not arise, because the final customers look for those products, i.e. waste gas desulphurisation systems, direct, and then themselves combine them with a firing unit of their choice.
- (140) As competitor 2 had raised concerns regarding future developments with regard to these multifuel plants, and in particular three tenders currently in progress (hereinafter "projects A, B and C"), the Commission contacted the customers concerned in order to obtain a clear picture of the specifications announced and the technologies and suppliers that might be able to meet them.
- (141) Projects A and B are to be carried out for the same customer in different places; they are multifuel plants with a capacity of 35-40 MWel, burning sludge from paper production, biomass (bark), substitute fuels and coal (up to 50%). In both cases the firing unit consists of a boiler with a circulating fluidised bed. For the flue gas desulphurisation system, both calls for tenders specified only the expected fuel mix and the waste gas values to be complied with; the method to be used was left open, deliberately so, so as to leave the choice of the technology to the tenderers. A call for tenders for the whole plant – firing, flue gas desulphurisation and any other components – was published in parallel with the call for the flue gas desulphurisation component alone. This is intended to ensure that small and medium-sized suppliers of flue gas desulphurisation systems can also be considered, so that the best solution for the projects can be identified. It also means that suppliers of fluidised bed firing units can be considered without their having to offer a flue gas desulphurisation system as well. The contracts have not yet been awarded in either case, but the customer was already able to say that the CDS-FGD method could be replaced very satisfactorily in both cases by other, dry methods.
- (142) Project C is for a plant to incinerate coal waste from opencast coal production which cannot be burnt in conventional pulverised-coal-based power stations. The plant will have a capacity of some 50 MWel. It is a new departure in that the customer has hitherto stored this waste in specially designated dumps in the neighbourhood of the coal workings, which is a common practice in the industry, but as part of a general campaign for the use of alternative energies (which also includes solar and wind energy projects) has now decided to make use of this waste coal for energy production. The coal in the region has a very high sulphur content, and the plant is a circulating fluidised bed plant that requires a particularly effective system of flue gas desulphurisation. According to the customer, the CDS-FGD method is the preferred solution here, because that technology works very well with the circulating fluidised

bed in the boiler. The customer has observed, however, that such a fluidised bed plant has been offered in combination with flue gas desulphurisation by several suppliers, some of them vertically integrated suppliers and some of them consortia. The customer takes the view, then, that even after the planned merger between the parties there will still be adequate competition in this area.

- (143) It will be seen that of the three projects named by competitor 2 (out of a total of about 102 flue gas desulphurisation projects in the reference period) the CDS-FGD method is the preferred solution in only one, and that the customer in question takes the view that even after the planned merger there will be enough alternative suppliers of this method in the market. This is in line with the general judgment of the market players questioned and the information supplied by the parties, according to which projects for the supply of entire plants for which only this method can be considered are very much a niche market, and that even after the planned merger there will still be enough other competitors. Thus the merger would not confer market power on the parties in this upstream market, or strengthen their market power there.

Nor would the merger have any other anticompetitive repercussions on final customers

- (144) On the grounds set out above it can be accepted that the merger would not have anticompetitive repercussions on final customers for fluidised bed plants. In particular, customers are generally in a position to call for separate tenders for the firing unit and the flue gas desulphurisation component, and in practice this is being done more and more often (see the projects described in paragraph (141)).
- (145) Furthermore, the in-depth market investigation has shown that in tenders for entire turnkey fluidised bed plants (below 200 MWe) in combination with CDS-FGD flue gas desulphurisation, the parties face competition from other vertically integrated suppliers, such as Mitsubishi or SES Tlemačce⁷⁰, which are regarded by customers as credible competitors for the supply of entire projects⁷¹. For example, the customer for project C (see paragraph (142)) confirms that tenders have been submitted by vertically integrated suppliers and by consortia which are able to offer such a fluidised bed plant in combination with flue gas desulphurisation.
- (146) There are also potential candidates for market entry or for an expansion of activities, such as the Polish firm Rafako⁷², which previously worked with AEE/Von Roll and now operates in its own right offering integrated solutions for whole fluidised bed plants and also flue gas desulphurisation plants separately. These firms consequently provide a competitive alternative to AEE/Lentjes.

c) Intermediate conclusion

⁷⁰ The Slovakian firm SES Tlemačce was originally a boilermaker, and has in the past also subcontracted for Lentjes. It now offers whole plants, including flue gas desulphurisation.

⁷¹ Confirmed by the customer for project C.

⁷² Rafako also originally made boilers. Now, however, it makes not only boilers fired by a wide variety of fuels but also flue gas desulphurisation systems (dry, semi-dry and wet) and components for such systems (boiler parts, heat exchangers, etc.).

(147) The merger accordingly gives rise to no competition concerns in respect of the relationship between the upstream market for flue gas desulphurisation plants and the downstream market for fluidised bed plants below 200 MWel.

VII. CONCLUSION

(148) On the grounds set out above, the Commission accepts that the planned transaction would not significantly impede effective competition in the common market or in a substantial part of it. Under Article 2(2) and Article 8(1) of the Merger Regulation, therefore, the transaction should be declared compatible with the common market and the functioning of the EEA Agreement,

HAS ADOPTED THIS DECISION:

Article 1

The notified merger whereby Austrian Energy & Environment AG & Co KG acquires control of Lentjes GmbH within the meaning of Article 3(1)(b) of the Merger Regulation is hereby declared compatible with the common market and the functioning of the EEA Agreement.

Article 2

This Decision is addressed to:

**Austrian Energy & Environment
AG & Co KG**
Waagner-Biro-Platz 1
A - 8074 Raaba/Graz

Done at Brussels, 05/12/2007

For the Commission
(signed)
Neelie Kroes
Member of the Commission