II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION
of 20 December 2001
declaring a concentration to be compatible with the common market and the EEA Agreement
(Case No COMP/M.2533 — BP/E.ON)

(notified under document number C(2001) 4527)

(Only the English text is authentic)

(Text with EEA relevance)

(2002/792/EC)

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(2)(a) thereof,

Having regard to Council Regulation (EEC) No 4064/89 of 21 December 1989 on the control of concentrations between undertakings [1], as last amended by Regulation (EC) No 1310/97 [2], and in particular Article 8(2) thereof,

Having regard to the Commission's decision of 6 September 2001 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission,

Having regard to the opinion of the Advisory Committee on Concentrations [3],

Having regard to the final report of the Hearing Officer in this case [4],

Whereas:

I. INTRODUCTION

(1) On 27 July 2001, the undertakings BP and E.ON notified the Commission, in accordance with Article 4 of Regulation (EEC) No 4064/89 (the Merger Regulation), of a proposed concentration by which BP and E.ON acquire within the meaning of Article 3(1)(b) of the Merger Regulation joint control of Veba Oel AG, which currently is under sole control of E.ON.

[1] OJ L 395, 30.12.1989, p. 1; corrected version OJ L 257, 21.9.1990, p. 13.
[2] OJ L 180, 9.7.1997, p. 1.
[3] OJ C 246, 12.10.2002.
[4] OJ C 246, 12.10.2002.

(2) After examination of the notification, the Commission by decision of 6 September 2001 concluded that the notified operation fell within the scope of the Merger Regulation and raised serious doubts as to its compatibility with the common market and the functioning of the EEA Agreement. The Commission accordingly initiated proceedings in this case pursuant to Article 6(1)(c) of the Merger Regulation and Article 57 of the EEA Agreement.

II. **THE PARTIES AND THE OPERATION**

(3) BP plc. (BP) is the holding company of a worldwide active exploration, petroleum and petrochemicals group of companies comprising four core businesses: (1) the exploration and production of crude oil and natural gas; (2) oil refining, marketing, supply and transportation of refined products; (3) manufacturing and marketing of petrochemicals and related products, and (4) solar energy. The German downstream oil activities are operated by the wholly owned subsidiary Deutsche BP GmbH (Deutsche BP).

(4) The German E.ON is the ultimate parent of a vertically integrated energy group, primarily active in Germany and, since its recent acquisition of Sydkraft AB, in Sweden. Its main activities are the production and/or supply of electricity, gas, water, chemical products and oil, as well as the provision of telecommunications services and real estate. The up- and downstream oil and petrochemicals business of E.ON (besides the chemical activities operated by its subsidiary Degussa, which will remain outside the joint venture) is operated via its 100 % subsidiary Veba Oel AG (Veba Oel or JV). Veba Oel, as a holding company, comprises three divisions, each operated by a wholly owned subsidiary: (1) upstream exploration and production, operated by Veba Oel & Gas GmbH (VOG), (2) oil refining and petrochemicals, operated by Veba Oil Refining & Petrochemicals GmbH (VORP), as well as (3) downstream oil products marketing, operated by Aral AG & Co KG (Aral). Beside Veba Oel's German activities, it is also active in Austria, Luxembourg and some Eastern European countries in the marketing of downstream oil products and, with respect to upstream activities, it operates one field in the United Kingdom and in the Netherlands, respectively, and holds minority shares in several fields operated by other companies.

(5) BP and E.ON signed a Participation Agreement on 15 July 2001. Pursuant to this agreement, Deutsche BP will acquire 51 % of the share capital of Veba Oel by capital increase, E.ON will retain 49 % of the share capital. E.ON will have a put option for the remaining 49 % at any time after the […] (*) for a fixed price. The agreement does not formally foresee that the business currently carried out by Deutsche BP will be combined with Veba Oel.

III. **CONCENTRATION**

(6) According to the Participation Agreement, BP will appoint a majority of the members of the management board and of the supervisory board, respectively, and the parties shall enter into a shareholders' agreement according to which certain matters shall only be undertaken or executed by Veba if both E.ON and BP agree to them. These matters comprise, *inter alia*, the annual financial and investment planning of Veba Oel and its subgroup as well as certain types of transactions exceeding a value of […] *. Therefore, E.ON will have veto rights related to strategic decisions on the business policy of Veba Oel although it only holds a minority in the shareholders' meeting and a minority of representatives on the supervisory and the management board. In case E.ON's put option is exercised, BP will acquire sole control over Veba. However, this is uncertain at the current stage and therefore cannot be taken into account.

(*) 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.

(7) In the light of the veto rights conferred on E.ON by the Participation Agreement safeguarding its decisive influence in Veba Oel it can be concluded that BP and E.ON will have joint control over Veba Oel. The transaction therefore constitutes a concentration within the meaning of Article 3(1)b of the Merger Regulation.

IV. **COMMUNITY DIMENSION**

(8) The undertakings concerned have a combined aggregate worldwide turnover of more than EUR 5 billion ([5]) (BP: EUR 160,2 billion, E.ON: EUR 93,29 billion, Veba Oel: EUR 20,2 billion). BP, E.ON and Veba Oel each have an aggregate Community-wide turnover in excess of EUR 250 million (BP: EUR […] *, E.ON: EUR […] *, Veba Oel: EUR […] *). E.ON and Veba Oel achieve more than two-thirds of their aggregate Community-wide turnover in Germany, but this is not the case for BP. The notified operation therefore has a Community dimension within the meaning of Article 1(2) of the Merger Regulation.

V. **PROCEDURE**

(9) On 20 August 2001 the German competition authority, the Bundeskartellamt informed the Commission that the concentration threatens to create or to strengthen a dominant position as a result of which effective competition would be significantly impeded on a market within Germany, which presents all the characteristics of a distinct market pursuant to Article 9(2) of the Merger Regulation, requested the Commission to partly refer the case. The request related to the markets for downstream mineral oil products in Germany, including in particular the markets for motor gasoline, diesel and light heating oil retailing and wholesaling, aviation fuels, heavy fuel oil, bitumen and lubricants. The request did not concern the markets for petrochemicals, the markets for upstream oil activities as well as the markets for downstream oil products outside Germany. By decision of 6 September 2001, the Commission partly referred the case to the competent German authorities as requested.

(10) On October 24 2001 a Statement of Objections was sent to BP and E.ON, which sent a combined reply on 5 November 2001. As requested by the parties, a hearing was held on 7 November 2001.

VI. **ASSESSMENT UNDER ARTICLE 2 OF THE MERGER REGULATION**

A. *RELEVANT PRODUCT MARKET*

(11) Ethylene is one of the most important basic chemical products, which belongs to the olefin group consisting of ethylene, propylene, and butadiene. In Western Europe, ethylene is produced principally from naphtha (itself a product of the process of refining crude oil) in steamcracking equipment. It is used as a raw material for ethylene derivatives such as polyethylene and PVC and no other product can replace it. In line with previous decisions for ethylene ([6]), the market investigation has confirmed that ethylene constitutes a separate product market.

B. *RELEVANT GEOGRAPHIC MARKET*

(12) The parties consider that the appropriate geographic market definition for ethylene should be at least Western Europe. They argue that ethylene moves around and enters the pipeline network operated by Aethylenrohrleitungsgesellschaft mbH & Co. KG and its extension pipes (ARG+) from a variety of sources, *inter alia*, the United Kingdom, coastal North-West Europe locations, the Mediterranean, North America, the Middle East and Asia. Imports typically account for approximately 10 % of consumption in the ARG+. Furthermore, the ARG+ has a distinct pricing link, through the North West European Contract Price (NWECP), with other sources of production and other consumption areas.

([5]) Turnover calculated in accordance with Article 5(1) of the Merger Regulation and the Commission Notice on the calculation of turnover (OJ C 66, 2 March 1998, p. 25). To the extent that figures include turnover for the period before 1 January 1999, they are calculated on the basis of average ECU exchange rates and translated into EUR on a one-for-one basis.

([6]) See Cases COMP/M.1628 — Totalfina/Elf, COMP/M.2345 — BP/Erdölchemie, IV/M.361 — Nesté/Statoil, IV/M.550 — Union Carbide/Enichem.

(13) The Commission does not agree with the geographic market definition proposed by the parties. In line with its previous decisions the Commission considers that the relevant geographic market for the supply of ethylene is a function of the extent of the available pipeline network ([7]). Ethylene is a hazardous gas which is highly flammable. Due to these product properties it is neither profitable nor practical to transport ethylene overland by road or rail. For instance in Germany, this transport would require a special permit and transport by barge on the Rhine is even prohibited. Over long distances, ethylene is transported either in compressed form by pipeline or in liquid form by refrigerated ship. However, such transport requires major investment in logistical equipment such as pipelines and specially equipped sea terminals which in turn are often connected to pipelines or to one or several ethylene consumers. In order to reduce transport costs and logistical difficulties, ethylene consumers tend to be located near to the ethylene production sites. It is impossible in practice to move large quantities of ethylene from a production site to an inland consumption site if the two sites are not connected to the same network of pipelines. Consequently, given these constraints for the transportation of ethylene, ethylene production and consumption sites are characterised by individual systems where producers and consumers are combined on-site or linked by a pipeline and/or the access to deep sea terminals. Therefore, the relevant geographic market is delineated by the available pipeline network.

(14) The pipeline network relevant for delineating the relevant geographical market for ethylene is the pipeline network owned and operated by Aethylenrohrleitungsgesellschaft mbH & Co. KG, together with its associated pipelines (the so-called ARG+ pipeline network), these associated pipelines being mostly owned by the linked ethylene consumer or producer. The ARG+ links various production sites and ethylene consumers in Belgium, the Netherlands and Western Germany.

(15) The limited amount of imports and their restricted availability for consumers means a broader definition of the geographic market is not possible. There are five sea terminals linked to the ARG+ which allow for ethylene imports by ship from production sites located outside the ARG+ area. Of total ethylene consumption by ARG+ consumers, approximately 15 % were imported from outside the ARG in 2000, which was a peak year due to several unscheduled downtimes of ethylene production facilities (so-called crackers) on the ARG. Usually imports account for approximately 10 % of total (captive and merchant) demand. By far the greatest share of imports is done by the owners of the import terminals, third party imports only account for 10 to 20 % of the total imports. For third parties, the amount of ethylene imports into the ARG+ catchment area is severely restricted. First, there are no public terminals offering free access to third parties, but all are owned by ethylene producers. Second, existing terminals have been designed primarily to fit the ethylene needs of their owners, they are in addition to imports used for the storage of excess production of the cracker usually linked to the terminal, and do not provide sufficient long term capacity for the open market. Even if third parties are allowed to use these terminals, third parties raised a number of contractual and practical difficulties which prevent them from using these terminals on a structural basis. In contractual terms, it appears to be very common that terminalling contracts are linked to the existence and duration of a supply agreement with the terminal owner and that the terminal is only made available for a certain percentage of the volumes which are supplied directly by the terminal owner. In addition, such contracts partly provide for certain rights of the terminal owners whereby the ethylene purchaser is obliged to negotiate with the terminal owner whether the purchaser would accept direct supply instead of using the terminal. Third, consumers which are not directly linked to a sea terminal have to pay ship freight cost, terminalling fees and transportation costs charged by the ARG for transport over the pipeline, which means that large scale imports are not an economically viable alternative to products produced on the ARG+.

([7]) Cases COMP/M.1628 — Totalfina/Elf, IV/M.361 — Nesté/Statoil, IV/M.550 — Union Carbide/Enichem. In case M.2092 — Repsol Chimica/Borealis, the Commission left open whether the relevant market was local or wider, but in the area at question (the Iberian peninsula) there were no ethylene pipelines. The geographic scope of the ethylene market was also left open in COMP/M.2345 — BP/Erdölchemie.

(16) The pricing link with other areas does not lead to an extension of the scope of the geographic market. The industry report ICIS-LOR publishes a quarterly reference price as the NWECP. This reference price applies to sales in the ARG+ area as well as to ethylene sales outside this area, *inter alia*, to ethylene sales in other parts of Germany, the United Kingdom, and France. However, according to market participants the ICIS-LOR quarterly reference price is set exclusively by sales and purchases on the ARG+ whereas prices in non-ARG+ markets do not influence prices on the ARG+. As a result, there is a one way price influence from the ARG+ to other areas. This pricing influence which only leads out of the ARG+ cannot be said to extend the scope of the ARG+ geographic market. Finally, a further indication that the ARG+ delineates a distinct geographical market for the supply of ethylene is the fact that the industry reports issued by Chemical Market Associates Inc. (CMAI), publish distinct reference prices for spot sales ex-ARG, compared to sales cif North-Western Europe and the Mediterranean area.

(17) It therefore can be concluded that the relevant geographic market is the pipeline system of the ARG+ ethylene pipeline.

C. *COMPATIBILITY WITH THE COMMON MARKET*

(18) On 10 July 2001 Shell and DEA notified the Commission of their agreement whereby Shell will acquire control over DEA (case COMP/M.2389 — Shell/DEA). This transaction will equally affect the market for ethylene on the ARG+. A single analysis of this market was carried out for the two cases, which leads to the present decision as well as to a parallel decision in case M.2389 — Shell/DEA, adopted simultaneously.

1. CURRENT MARKET STRUCTURE

1.1. ***The market for ethylene is already today characterised by a high degree of concentration***

(19) In line with previous decisions of the Commission ([8]) and the view of BP and E.ON, the parties' and other market participants' market shares are calculated and considered with regard only to the merchant market. The merchant market comprises sales to third parties, and does not consider production volumes which are used internally within the same group for the conversion into products further downstream (captive use).

(20) Furthermore, market shares of ethylene suppliers as well as the volume of the merchant market itself may be calculated in principle on a net basis as regards sales and purchases on the ARG+. In case a producer is at the same time selling and purchasing on the merchant market, it is appropriate to consolidate sales and purchases to a net position as either net buyer or net seller. The Commission's investigation has shown that swaps among producers as well as sales and purchases on the (spot) market in the same year are mainly carried out for operational reasons and not for the purposes of a systematic and large scale on-sale. Furthermore, swaps do not reflect independent market power on the part of the participating undertaking and cannot be compared to sales. For the special situation as regards Erdölchemie see recital 30.

(21) Imports by producers connected to the ARG+ from outside the ARG+, whether they are delivered by one and the same company/group of companies or purchased from third parties, are accounted in the same way as ethylene production on the ARG+. It is not appropriate to treat imports onto the ARG+ as purchases in the ARG+ (which, as a consequence, would lower the importer's net selling position and market share). Imports on a continuous basis are not readily available for all ethylene consumers in the ARG+. In addition, large-scale imports usually are not operated on a swap basis or for other operational reasons without market effects. Therefore, via imports a considerable market position can be achieved and the offset of imports against merchant sales would lead to a significantly distorted picture of the individual undertaking's market share. Furthermore, in line with the parties' submissions, imports account for a part of the total ethylene market volume on the ARG+. In order to be consistent, the market share deriving from these imports has to be attributed to the undertaking selling these imports also within the ARG+ catchment area.

([8]) See Case IV/M.361 — Nesté/Statoil, 17.2.1994.

(22) On the basis of the foregoing, the market shares and capacities of the ethylene sellers on the ARG+ merchant market as well as imports by third parties for the year 2000 are as follows:

Table 1

Market shares

Ethylene seller	Share of merchant market %	Capacity kt
Veba	[25-35] *	[900-1 000] *
DEA	[10-20] *	[400-500] *
Shell	[10-20] *	[900-1 000] *
BP/Erdölchemie	0,0	[900-1 000] *
BASF	[10-20] *	[1 300-1 400] *
Atofina	[5-15] *	[700-800] *
Exxon	[5-15] *	[400-500] *
Imports 3rd parties	[0-10] *	

(23) In general, the ethylene suppliers in the ARG+ area can be grouped into three different categories, these are:

(i) suppliers which are not vertically integrated downstream and sell their whole ethylene production on the merchant market;

(ii) ethylene producers which are vertically integrated downstream and partly use their ethylene production captively and partly sell it on the merchant market; and

(iii) ethylene producers which are vertically integrated and use their whole ethylene production captively.

(24) Veba Oel is seen by the market to belong to the first category (non-downstream integrated full seller). With a capacity of its two crackers in Gelsenkirchen of around [900 to 1 000] * kilotons per annum (ktpa), a production which was fully exploiting the capacity and was entirely sold to the merchant market in the year 2000 (as also in the years 1998 to 1999), it is by far the largest player in the merchant market in the ARG+ catchment area with a market share of around [25 to 35] * %.

(25) The other market player belonging to the first group is DEA. In the ARG+ area DEA owns two crackers in Wesseling with an ethylene capacity of [400 to 500] * ktpa which was [highly]* exploited in the year 2000. The whole production was sold to the merchant market, as was also the case for the years 1998 and 1999 ([9]). DEA's market share lies around [10 to 20] * %. It cannot be argued that DEA only has one customer, CPO, which it has supplied since the 1970, and thus DEA's market share does not reflect its market position appropriately. However, CPO is not a consumer on its own, nor is it an independent trader. It negotiates the supplies for Basell, Clariant, Celanese, Vinnolit and Vintron. […] *. The respective agreements are a result of the divestment of former members of the Hoechst group, for which economic supplies had been secured at the time. The contracts of CPO with its customers are limited to the duration of CPO's supply contracts with DEA (and Veba). Furthermore, [a large proportion] * of CPO's demand is passed on to Basell, the Joint Venture between Shell and BASF, both net sellers on the merchant market. Basell today has its own ethylene cracker and is likely to be able to procure remaining demand at economic terms via its parents. Against this background, CPO itself expressed the expectation that it will not continue to exist in the present form after the expiry of its supply contracts with DEA and Veba.

([9]) Although DEA was to a limited degree active in downstream ethylene derivatives production until early 2001, their entire production on the ARG was available to the merchant market. DEA's downstream activities were located off the ARG at Heide/Brunsbüttel and thus were not supplied via the ARG.

(26) In conclusion, therefore, the two players DEA and Veba provided [a significant proportion] * of the total amount of the merchant market in the ARG+ area in the year 2000.

(27) Shell is seen by the market as belonging to the second category. Shell owns an ethylene cracker at Moerdijk, the Netherlands, connected to the ARG via a proprietary pipeline. Shell submits that it is an overall net purchaser of ethylene due to the fact that the demand of its Basell joint venture (under joint control and ownership together with BASF) has to be taken into account as captive use. This argument cannot be accepted. As a full-function joint venture within the meaning of the Merger Regulation Basell is set up as an autonomous economic entity which only initially will purchase smaller parts of its required ethylene supply from its parents ([10]). Since at least in a medium-term perspective Basell is free in its choice of ethylene supply, Basell's actual demand cannot be included in the calculation of Shell's net balance of ethylene. This assessment corresponds to the market perception according to which Shell is a significant player in the ethylene merchant market at the ARG+ level. In addition to Shell's production on the ARG+, its imports onto the ARG+ are added to its production. According to this calculation Shell's 2000 market share amounted to [10 to 20] * %.

(28) This figure may understate Shell's actual market potential. In the year 2000 the capacity of Shell's ethylene cracker in Moerdijk was increased from [600 to 700] * kt to [800 to 900] * kt. The expansion of cracker capacity, which is not reflected in the 2000 market share, will strengthen Shell's market position in the future and increase its market share in excess of the current level.

(29) Other players belonging to the second group are BASF with a market share in the merchant market of [10 to 20] * %, Atofina with a significantly lower market share of around [5 to 15] * %, and Exxon with a market share of [5 to 15] * %. Exxon's share is largely based on its imports on the ARG from its ethylene production sites in the United Kingdom. The remaining market shares are accounted for by imports carried out by other parties.

(30) BP belongs to the third category with respect to its net ethylene balance, consuming all its ethylene production captively on a net basis, even taking into account BP's considerable imports in the year 2000. This still holds true after the taking over of sole control over Erdölchemie in April 2001. However, Erdölchemie still supplies customers with ethylene on the basis of long-term contracts. Although according to the Commission's market investigation Erdölchemie's ethylene sales are decreasing (from […] * in 2000 to expected […] * in 2001), following the acquisition of sole control by BP, Erdölchemie's sales nevertheless give BP a market perspective and intelligence also from a seller's point of view.

(31) Other players belonging to the third group are DOW, DSM and Basell, as their entire ethylene production (in terms of a net balance) is used captively, and they purchase additional volumes on the market.

(32) Beside these ethylene consumers which are themselves active in the ethylene production there are also free, non-integrated consumers such as Sasol, Celanese, Solvay/Solvin, LVM, Ineos and Borealis, which are entirely dependent on third ethylene producers' supplies for their requirements of ethylene on the ARG+.

1.2. *As the only non-integrated suppliers, Dea and Veba are the main price settlers in the ethylene market and therefore play a decisive role for the functioning of the market*

(33) The vast majority of ethylene supplies are based on long-term contracts between suppliers and consumers. In general, there are three different types of contracts in terms of pricing schemes.

([10]) See Case COMP/M.1751 — Shell/BASF/JV Project Nicole, 29.3.2001.

(34) First and foremost, large volume contractors widely refer in their long term contracts to a basic contract price, which is then adjusted via individual discounts. Whilst the individual discount is fixed for the whole term of the contract, the basic contract price is subject to re-negotiation between the partners every quarter. A large proportion of these contracts contain fall-back clauses which state the reference contract price published by the industry report ICIS-LOR as agreed in case the parties do not reach an agreement in their negotiations.

(35) Second, there are contracts mainly for smaller volumes that do not foresee quarterly price negotiations, but refer to the published reference contract price, which is also adjusted by an individual discount agreed for the whole term of the contract. The price actually to pay varies automatically according to the movements of the published reference price. The price to pay according to these types of contracts therefore follows the price of the first type of contracts.

(36) To arrive at this published reference price, the most important players on the market (having a contract of the first type) with minimum volumes to negotiate of around 200 kt report their contract prices (without discounts) which they agreed in the quarterly individual negotiations to publishing organisations like ICIS-LOR or CMAI. Other parties which also have to negotiate prices either follow this price or deviate from it, and these facts are subsequently also reported and published. After certain deals have been closed at the same price, this price is considered as the accepted contract price for a certain quarter, and published by ICIS as the headline reference price 'North Western European Contract Price (NWECP)'. In case no such reference price is widely accepted, a weighted average is published as the headline quarter price. As a consequence, all other contracts referring to this price without any further re-negotiations will be adjusted accordingly.

(37) On the basis of this pricing mechanism, influence on significant volumes of product does not only have an impact on the individual contract, but has a broader impact on the general pricing level on the ethylene market. Veba and Dea are the most important merchant sellers, and therefore already play an important role in terms of volumes in the described price setting mechanism. This role is particularly emphasised by the fact that Veba and Dea are the only suppliers that are not integrated in products downstream of ethylene. Consequently, the prices they set are considered to be entirely free from biasing interests in downstream markets and considerations of captive use, and driven only by objective aspects of the ethylene market such as feedstock cost, the supply/demand balance, margin trends, and so forth. Although the contracts of other suppliers have been reported in the past as well, all market participants that answered to the Commission's questionnaires agreed that Veba and Dea were the price setters in the ARG ethylene market, ensuring a supply/demand orientated price finding widely accepted by the market.

(38) The parties argue that the role of Veba and DEA for the pricing mechanism and the functioning of the market is widely overstated for the following reasons: DEA has only one supply contract with one customer. It was partially integrated downstream of ethylene until April 2001, as was Veba until 1998, which did not influence their role as independent price settlers. Several other suppliers contributed to the settling of the ICIS price in the past, and even parties not linked to the ARG+ pipeline can settle the ICIS prices. There are also other mechanisms that could replace the ICIS reference.

(39) The Commission does not agree with those arguments. The situation of DEA's only customer is addressed in detail below in recital 123. The degree of downstream integration of DEA and Veba was limited in the past and therefore did not alter their perception as independent suppliers. DEA's main ethylene derivatives plants were located outside the ARG+, and DEA did not even supply the derivatives plants which it owned on the ARG+. Therefore, the total volume of its ethylene production site on the ARG+ was destined for the merchant market even at the time when DEA had some downstream activities. In addition, DEA's former captive use of ethylene accounted only for [a small proportion] * of total production, the remaining […] * % were supplied to the merchant market which also was the overall focus of its activities. As regards Veba, its proportion of former captive use is estimated between 25 to 50 % of its production. The majority of the volume was therefore also intended the open market. Furthermore, Veba divested all its downstream activities in 1998 and therefore has already been acting for a significant time as a wholly independent, pure merchant seller on the market.

(40) As regards the influence of other producers in the price-settling mechanism, market participants submitted that over the last five years on less than 10 occasions the quarterly ICIS reference price was based on other agreements than those involving DEA and Veba (mainly with CPO). It further appears that suppliers outside the ARG+ never formed a basis for the ICIS reference price. This is due to the fact that the ARG+ area is the only cluster with a sufficient number of producers and customers of ethylene to allow for market interaction, whereas at most other production sites in Western Europe there is one supplier and very few customers, inter-linked via pipelines and without a choice in their contract partners. Although there might be other pricing schemes than the ICIS reference, such as references to feedstock cost or margin sharing arrangements, these other mechanisms are not such a close reflection of the ethylene market conditions, and therefore are less likely to be applied by market participants.

(41) Third, there are formula based-contracts, which usually take into account the suppliers cost, feedstock prices, cracker economies and downstream derivatives margins. There are no regular price negotiations, as prices are the result of the objective data which is processed through the formula calculation. This type of contract is mainly used in situations where formerly integrated production sites belonging to one group were split and the derivative production unit downstream of ethylene was sold to a third party. Of total volumes contracted on the merchant market, this type of contract appears to account for [a small proportion] *.

2. COLLECTIVE DOMINANCE

(42) The Commission considers that following the proposed concentration and if the transaction between Shell and DEA is implemented a collective dominance of the two new entities on the ARG+ market for ethylene will arise. In former collective dominance cases, the Commission has referred to the following elements to establish the existence or not of a collective dominant position ([11]): (i) supply concentration; (ii) homogeneity of the product; (iii) symmetry of market shares; costs, and interests; (iv) price transparency; (v) retaliation possibilities; (vi) high entry barriers and absence of potential competition; and (vii) inelastic demand without countervailing buying power. However, this list is neither binding, in particular not all of these elements have to be present to establish a collective dominant position, nor exhaustive but merely serves to provide a set of useful indicators. In the light of these factors the present case must be assessed as follows:

2.1. ***After the proposed mergers, Shell and BP will have together a market share of around [55 to 65] * %, and will not be exposed to comparably strong competitors***

(43) The most obvious and important effect of the two transactions on competition in the ethylene merchant market would be the disappearance of DEA and Veba as independent competitors and non-integrated suppliers from the merchant market. The main consequence for the market structure would be brought about by the loss of independence of the most important sellers to the merchant market, which is particularly aggravated by the fact that the merged entities would not be able to play DEA's and Veba's current role as independent price settlers in the ethylene market on the ARG+, and that no other independent ethylene producer, without interests in downstream production, would be left on the ARG+.

([11]) See, for example, Case IV/M.1383 — Exxon/Mobil, 29.9.1999.

(44) After the proposed mergers, the market shares of the ethylene sellers on the ARG+ would be as follows:

Table 2

Market shares post merger

Ethylene seller	Market share in %
BP/Veba	[25-35] *
Shell/DEA	[25-35] *
BASF	[10-20] *
Exxon	[5-15] *
Atofina	[5-15] *

(45) Shell and BP would have arithmetically a combined market share of [55 to 65] * % (Shell/DEA [25 to 35] * % and BP/Veba [25 to 35] * %). The situation would not change considerably if, in a post-merger scenario, BP's further net demand were to be balanced against Veba's surplus as outcome of a net calculation. In such a scenario (also if the merchant market volume is reduced by BP's net deficit) the two entities would have a combined market share of [55 to 65] * % (Shell/DEA [25 to 35] * % and BP/Veba [25 to 35] * %). Applying the net calculation directly to the immediate future amounts to a very conservative presentation of the BP/Veba market position as Veba's market sales will not immediately decrease once the merger has been completed, as is also the case with Erdölchemie.

(46) The increase in market share also corresponds to an increase in market power of Shell/DEA and BP/Veba as a result of the two transactions. Since currently the ethylene production of DEA and Veba is entirely designated to be sold on the merchant market, the market shares would also correspond to the respective market power of the combined Shell/DEA and BP/E.ON in the merchant market. The increase in market power may even go beyond the mere gain of market shares since DEA and Veba have been of particular importance for the market in their role as ethylene producers without downstream interests and independent price settlers. The transactions would therefore not only lead to pure formal changes in market share figures, but would considerably affect the market structure in substantive terms.

(47) The capacity share for the ethylene production in the ARG+ area of the two new entities would be [10 to 20] * % for Shell/DEA (with a capacity of [1 300 to 1 500] * ktpa) and approximately [15 to 25] * % for BP/Veba (with a capacity of [1 800 to 2 000] * ktpa). Other producers' shares would be BASF with [10 to 20] * %, Atofina with [5 to 15] * %, and Exxon with [2 to 7] * %. The two new entities would be the two biggest producers of ethylene along the ARG+.

(48) Beside the two new entities, only the following three net ethylene sellers on the ARG+ would be left: BASF, Atofina and Exxon. According to the Commission's market investigation, DOW is not a seller of ethylene on the ARG+. All these ethylene suppliers are, in the same way as the combined entities, though not necessarily as regards the same products, vertically integrated downstream and share similar incentives with regard to the supply of ethylene to customers with whom all these companies compete downstream on the market for ethylene derivatives.

(49) The parties argue that, on the basis of the Commission's market share calculation, the BP/E.ON transaction does not result in any horizontal overlap and thus does not increase the two partners combined market power. However, first it has to be noted that although according to net figures, there is no horizontal overlap, BP (mainly through Erdölchemie) is an active seller on the market, and thus the sales activities of the two entities BP and Veba are combined, resulting in an increase in overall sales, flexibility and market intelligence which is of competitive relevance. Second, the transaction will combine the production capacity of the two players, resulting in the biggest production unit of ethylene on the ARG. Again, this considerably strengthens the new entities' power in the ethylene market and therefore is of significant relevance for the competitive assessment. Finally, to adequately assess the competitive impact on both mergers, their impact on the overall structure of the supply situation on the ARG market has to be taken into account. Both mergers lead to the disappearance of the only independent sellers on the merchant market for ethylene via the integration of Veba and DEA in fully vertically integrated international companies with strong interests in downstream derivatives market. It is this structural change, to which the combination of BP and Veba contributes in equal terms, which leads to a competitive situation in the market ultimately resulting in the creation of collective dominance.

(50) The next strongest competitor would be BASF whose market share is considerably smaller ([10 to 20] * % for the year 2000). A very strong structural link between BASF and Shell lies in the JV Basell to which BASF and Shell have contributed all their interests in Polypropylene and Polyethylene. The joint ownership of Basell gives BASF the incentive not to support the downstream polyethylene competitors by economically priced ethylene supply (as outlined for Shell below at point 74) and thereby reduces its incentives to compete fiercely via price decreases with Shell and BP in the ethylene market on the ARG+. Furthermore, BASF is also active in other downstream markets, such as ethylene oxide/monoethylene glycol. Thereby the same incentives arise not to compete with the two new entities on the upstream market for ethylene as discussed for Shell and BP below (recital 74). It can be thus be expected that BASF will follow the two new market leaders rather than play the role of a maverick.

(51) In addition, whereas the merged entities would be active also in the upstream business BASF lacks the vertical integration upstream into refineries and the ready naphtha supply for its steam crackers from own sources. The parties submitted that this does not lead to a decisive disadvantage as naphtha is readily available on the market. However, although this may be the case for the supply of BASF's crackers in Antwerp, the situation appears to be different for the Ludwigshafen crackers. The cost disadvantage does not only refer to the necessary shipping of naphtha to these crackers, but BASF is dependent for a certain amount of naphtha on the supply via the Rhein-Main Rohrleitungs-transport pipeline (RMR), a multi-product pipeline leading from the Amsterdam-Rotterdam-Antwerp ARA region to the Frankfurt/Ludwigshafen area in Germany […] *. For transport via the RMR pipeline BASF is dependent on the shareholders of the pipeline company namely BP, Veba and in particular Shell. These factors very much limit BASF's possibility and incentives to exercise pressure on the two merged entities in the ethylene market on the ARG+.

(52) Post-merger, Atofina's market share would reach [5 to 15] * %. This limited share of the merchant market as well as Atofina's lack of […] * do not give Atofina sufficient market power to increase competitive pressure on the two merged entities, and its incentives to vigorously compete with BP and Shell are limited by its extensive downstream interests.

(53) Exxon's ethylene production capacity in the ARG+ is limited to its minority 35 % share in the Fina Olefins Antwerp (FAO) joint venture in Antwerp. Its market sales to third parties are largely dependent on its imports and its market share, being [5 to 15] * %, is much smaller than those of the merged entities. The capacity of the FAO joint venture has been [highly] * exploited in the year 2000 and according to the Commission's market investigation there are indications that Exxon is […] *. In addition, its incentives to supply the ethylene derivatives producers with economically priced ethylene is also restricted by its own large production of ethylene derivatives. Hence, Exxon is also likely follow the two market leaders' strategy, and is not able to provide for sufficient competitive pressure on the parties to the two transactions, nor does it have any incentive to do so.

2.2. ***The two new market leaders have a privileged position in essential infrastructure***

2.2.1. **BP/Veba will have privileged access to the ARG pipeline and a strong influence over the ARG company structure**

(54) The importance of the ARG pipeline as the only economic means of transport for ethylene in the area has been outlined already above (recitals 16, 17). In the ARG area, ethylene is not transported via any other means. Therefore, availability of product and competition between the different suppliers connected to this pipeline for the supply of customers very much relies on access to this pipeline at competitive conditions. Ethylene suppliers are mainly located at the Western and Eastern end of the pipeline system. Without the economic possibility to transport product over the ARG pipeline, the ability and incentive for those producers to compete for contracts along the whole of the ARG will be restricted, thus limiting customers' choice and their ability to achieve competitive ethylene prices. This also applies to the competitive force of imports. All import terminals which allow for ethylene imports via deep sea ships are located at the North Sea coast. Consequently, especially for customers located at the Eastern part of the ARG, imports are not readily accessible and cannot be used as a constraint to ARG-suppliers without the availability of the ARG transport pipeline at low prices.

(55) The position of the merged entity BP/Veba Oel on the ARG ethylene market will be supported by the increased share it will hold in the Aethylen-Rohrleitungs-Gesellschaft mbH & Co. KG (ARG company), the company owning the core ARG pipeline network. The current holding of the share capital in the ARG company is as follows:

Table 3

ARG ownership

Shareholder	Capital share
BP (including Erdölchemie)	33,33 %
Veba (E.ON)	16,66 %
Degussa (E.ON)	16,66 %
Bayer	16,66 %
DSM	16,66 %

(56) BP/Veba as a shareholder in the ARG company […] *.

(57) Moreover, BP/Veba will have significant influence over the ARG company policy and in particular […] * through its combined capital share. According to the articles of association, unanimity is required for decisions of crucial importance such as […] *. A [special majority] * is required for [strategic decisions] *.

(58) Post merger, the combined BP/Veba alone will hold 50 % of the capital, meaning it will be able to block all decisions requiring a [special majority] *. It would be therefore in a position to block, in particular, […] *. BP/Veba would therefore be able to exercise a significant influence over [strategic decisions] *.

(59) Furthermore, until July 2001 there were three managing directors appointed one each by the shareholders DSM, Veba and Erdölchemie (BP). This situation will be changed officially by the end of 2001 towards a system of one managing director who is recruited from the outside, and not directly appointed by individual shareholders. There are already respective subcommittee resolutions, and the shareholders are expected to agree on the new concept by the end of this year. In preliminary execution of this change, since July 2001 there has been only one acting managing director for the ARG company. […] * With its blocking vote, BP/Veba will be in a position to [influence the appointment of a managing director] *.

(60) The parties argue that prior to the combination of BP and Veba, BP held a blocking minority with regard to decisions requiring a [special majority] *, and that the transaction would therefore not bring about any substantial change with regard to the ARG.The merger will completely change BP's interests in the use of the pipeline and in exercising the rights conferred by its shareholding in the pipeline company. BP currently is a net ethylene buyer on the ARG+ and has an interest in opening third party producers' access to the ARG to guarantee ready supply of ethylene. It formed a counterbalance to E.ON, which controlled the shares of Veba, the strongest net seller, and Degussa, in any strategy the E.ON group was to adopt in the ARG company. BP itself, on the other hand, was exposed to the E.ON block of comparable strength, which it had to consider in any strategy for the ARG company. After the merger the combined BP/Veba will become the strongest seller of ethylene on the ARG+. It will therefore be no longer interested in supporting and defending the interests of ethylene buyers in the ARG pipeline company, namely open access at low prices for suppliers and consumers. In particular, BP/Veba could use its share in the company conferring a blocking vote to […] *. Moreover, BP/Veba will be the only shareholder with a blocking capacity, and it will not be counterbalanced by any other equally strong shareholder. This puts the new entity in a position of particular strength.

(61) It can therefore be concluded that BP/Veba will have […] * and significant influence over the ARG pipeline which is the essential infrastructure of the present ethylene market.

(62) BP/Veba's position in infrastructure will further be strengthened by the ownership of or influence on extension pipelines. Veba owns the pipeline which links certain ethylene consumers [at a site in the Rhine/Ruhr area] * with the ARG pipeline via Veba's cracker in Gelsenkirchen ([12]). The supply of these consumers, who account for a considerable amount of total merchant market sales, is fully dependent on the access to this pipeline. As none of the consumers linked via this pipeline are vertically integrated, they entirely depend on supplies from third parties on the open market. Any supply by Veba's competitors would need the consent of Veba for the use of the pipeline. This gives Veba considerable control over the choice of suppliers for these consumers and the competitive pressure alternative suppliers could exercise.

2.2.2. **Shell/DEA will have privileged access to import infrastructure and control over important pipeline links**

(63) Due to extremely high investment costs, market participants agreed that the entry of a completely new supplier on the ARG ethylene market based on a new cracker has to be excluded for the short and medium term. Additional capacity can only be expected from the de-bottlenecking of existing producers' facilities, which will not introduce a new independent competitive force on the market. Therefore, imports are the only additional independent source of ethylene supplies which could constrain the current suppliers' position on the market. Imports of ethylene can only be fed onto the ARG via the existing import terminals. These can thus be considered as a bottleneck control which confers a considerable influence over competition on the ARG+ ethylene market.

([12]) The pipeline is actually owned by Ruhr Oel GmbH (ROG), a 50/50 joint venture between Veba and the Venezuelan oil company PdVSA. […]*.

(64) Shell currently owns one of the five import terminals for ethylene connected to the ARG ([13]), which will significantly support Shell/DEA's strong position on the market. First, it enables Shell/DEA to import additional volumes into the ARG and therefore to react flexibly to supply/demand imbalances resulting from cracker downtimes or demand fluctuation. Shell/DEA will be able to closely follow market movements by still constantly maintaining high utilisation rates for their crackers, which is of an essential importance for the economic production of ethylene. This flexibility also allows Shell/DEA to bring additional volumes on the market even in times of full capacity rates at the ARG production sites.

(65) Second, via the terminal ownership Shell/DEA will control the access of third party ethylene consumers to this terminal and therefore their ability to access competitive ethylene sources from outside the ARG area. Through the capacity provided for third party throughput and the respective terminalling fees and terms, Shell/DEA will be able to influence to a large extent the volumes available for third parties through imports and the terms and conditions under which these imports can be operated, thereby being able to make imports at least uneconomic due to high terminalling fees and capacity limitations.

(66) It has been argued that its terminal ownership does not mean that Shell/DEA enjoys a privileged position. The Shell terminal is only one of five import terminals linked to the ARG, resulting in ample alternatives for third parties requiring import capacity. There is enough spare capacity at Shell's terminal today which is not used for Shell's own needs and which is made available for third parties at competitive terms.

(67) However, although there are other import terminals, all these terminals are owned by ethylene producers, that is to say, there are no independent terminal and storage providers without their own interests in ethylene production and distribution. Therefore, all terminal owners share the same interests with regard to their own ethylene activities and do not have greater interest in providing import capacity to third party competitors. In particular, it appears that Exxon's own terminal is fully utilised by Exxon itself as the largest importer of ethylene volumes so that terminal access for third parties is limited to the other four terminals. Furthermore, although Shell today allows third party access to its terminal, the respective amounts are very limited. Third party imports via Moerdijk accounted for only [10 to 80] * kt in 2000 (a peak year due to cracker downtimes on the ARG) and [5 to 75] * kt in 1999. The volumes imported by Shell in the same period are [several] * times higher. The limited capacity available for third parties is also due to the fact that the terminal owner will reserve a large margin of manoeuvre in the terminals capacity for its own needs to fully enjoy the flexibility described above (recital 15). For example, in 2000, Shell increased its own imports via Moerdijk by [a large degree] * due to increased outside requirements as its cracker at Moerdijk was down for expansion works. It can therefore be concluded that the ownership of an import terminal is an important asset for an ethylene producer on the ARG which significantly enhances its competitive power on the ARG.

(68) In addition, Shell owns a pipeline link between the core ARG pipeline, its cracker and sea terminal at Moerdijk and sites near Rotterdam. The port authority of Rotterdam plans to connect Rotterdam to the core ARG-pipeline on the basis of […] *, which will enhance Shell/DEA's market intelligence and influence in the ethylene market. In the other direction, this pipeline gives Shell access to the Antwerp area with its numerous ethylene consumers without having to use the core ARG.

2.3. ***Ethylene is a homogeneous product without significant innovation on a mature market***

(69) The ethylene transported on the ARG pipeline is subject to a common binding specification and therefore there are no quality differences between the different suppliers. There have been no major research and development advances over the last 20 years.

([13]) The others are owned by Exxon, FAO (a 65/35 JV between Atofina and Exxon), BASF and Dow.

(70) The parties argue that the market for ethylene is lacking homogeneity as although the product itself is homogenous, the different contracts are not. These contracts in their view differ significantly in terms of volumes, duration and pricing mechanism thus not allowing for any coordinated behaviour in that respect. However, it firstly has to be noted that due to the importance of pipelines as the only means for transporting ethylene, the terms of distribution are similar […] *. Secondly, differences in contracted volume and duration do not appear to constitute a considerable difference which would exclude tacit coordination. The same applies to the differences in pricing schemes. The vast majority of ethylene supply contracts refer to a quarterly contract price or directly to the respective published reference price, subject to a discount within a limited range. Differences might be observed with regard to pricing schemes based on cracker economics, margin sharing or other cost-related formulae. However, these contracts are of a limited importance in relation to the overall merchant sales on the ARG market. Moreover, it might be anticipated that at the expiry of contracts of this type, the pricing scheme, which reflects the disintegration of formerly intra-group activities, may be changed to one of the other two contract types. In addition, formula-based contracts are not disconnected from market pricing, as they allow for negotiated discounts from the prices resulting from the formula and in some cases contain references to published prices as maxima or minima (also see recital 41).

(71) The market for ethylene is mature, with growth rates linked to the GDP and an estimated basic growth trend of 2,5 %.

2.4. *There is a strong similarity between Shell and BP in terms of market shares, capacity and costs*

(72) The merged entities BP/Veba and Shell/DEA will have very similar market shares in the range of [25 to 35] * % each. After the transactions the company structures of the two entities will be aligned as both are vertically integrated upstream into raw material supply as well as downstream into ethylene derivatives. They are also the ethylene producers who dispose of the largest cracker capacities in the ARG+ catchment area. Even if the size of their crackers is not identical, their overall capacities are similar ([1 300 to 1 500] * and [1 800-2 000] * kt respectively) and they have the two biggest production capacities linked to the ARG+. These similarities in company and production structure will lead to a similarity of the respective cost structures of their businesses in the ARG+ area.

(73) The parties argue that there is no symmetry in costs, as the production costs vary significantly from cracker to cracker, and transportation costs vary from supplier to supplier and customer to customer, based on their relative location. However, although the efficiency and as a result the production costs of different crackers, in particular of different capacity, might vary; the overall range of variation is limited. According to industry consultants, the maximum difference in production costs between the most and least economic plant is less than 25 %. […] *. Furthermore, it has to be considered that in terms of size, Shell/DEA's crackers are on the extreme points of the possible range (one cracker of […] * kt and two relatively small crackers of […] *, whereas BP/Veba will have a homogeneous set of four crackers of approximately […] *. Consequently, as production cost is strongly related to the capacity size of the cracker, it can be assumed that the overall, average production cost of both entities will be in a sufficiently similar range. In addition, the smaller-scale crackers of DEA, BP and Veba respectively are located at the same site and therefore allow for combined economies of scale with regard to raw material supplies and logistics. Finally, the fact that transportation costs might differ for any given supplier-customer combination is a general feature of the majority of markets where physical products are delivered. There is no indication that either of the two new entities would be in a fundamentally different position as regards transport costs in relation to the other entity. The advantage of BP/Veba in terms of lower costs and preferred access to the pipeline by virtue of its shareholding in the ARG company is balanced by the fact that Shell/DEA after the merger will dispose of production sites at both ends of the ARG and therefore has a certain ability to avoid long distance transports over the ARG.

2.5. ***Both groups are vertically integrated in a similar way and therefore have similar interests with respect to the upstream market for ethylene***

(74) Ethylene is a basic raw material for a number of downstream products. BP and Shell are, contrary to the current situation of DEA and Veba, vertically integrated downstream into ethylene derivatives, as would be the remaining ethylene suppliers post merger. Due to their vertical integration the combined entities Shell/DEA and BP/Veba will share similar incentives with respect to ethylene sales to ethylene derivatives producers, in particular to those downstream producers which do not have their own ethylene supply or do so only in part. Such sales may give the parties to the transactions incentives to increase ethylene prices in order to reduce the competitiveness of competitors in ethylene derivatives. Since, most of the price formulas laid down in ethylene supply contracts are linked to published reference prices, such a price increase would not only relate to the direct contract partners of the merged entities but could translate into higher market prices in general. In addition, the published reference price NWECP, exclusively set on the ARG+, also applies to ethylene sales outside the ARG+ area. An increase of the ethylene price on the ARG+ can therefore translate into a price increase outside the ARG+.

(75) The similarity of the two merged entities' incentives does not imply that they necessarily have to be active in the same downstream products. Such incentives are already provided by the fact that they are active in some of the same downstream markets as the ethylene customers and derivative producers linked to the ARG+, partly also direct ethylene customers of the parties to the two transactions. Such incentives can, in particular, be shown with respect to (the different forms of) polyethylene, ethylene oxide/its derivatives, and ethanol.

2.5.1. **Polyethylene**

(76) Around 55 % of the ethylene produced within the ARG+ network is used for the production of the different types of polyethylene (approximately 9 % are used for low-densitiy polyethylene (LDPE), approximately 23 % for linear low density polyethylene (LLDPE), and approximately 23 % for high density polyethylene (HDPE)). 42 % of the Western European LDPE capacity, approximately 34 % of the LLDPE capacity and approximately 46 % of the HDPE capacity are based on the ARG+. The ethylene costs amount to 67 % of the price of HDPE.

(77) In previous decisions the Commission ([14]) defined the market as (1) HDPE individually, and either (2) C4 LLDPE, C6 LLDPE and LDPE together or (3) C4 LLDPE and C6 LLDPE together and (4) LDPE individually. In order to assess the incentives of the parties to the transactions with regard to the ethylene supply it is sufficient to limit the analysis to the three main families of PE: LDPE, HDPE and LLDPE (defined as C4 LLDPE and C6 LLDPE).

(78) Shell is active in the polyethylene market via its joint venture Basell which Shell jointly controls with BASF. Basell is active in LDPE, HDPE and LLDPE, producing these petrochemicals partly in its different production sites linked to the ARG catchment area, partly outside the ARG area, mainly in Western Europe. Basell's market shares of the Western European PE market are in the range of [15 to 25] * % for LDPE, LLDPE and HDPE.

(79) BP is also active in all three types of PE in Western Europe. Its market shares are [between 5 to 15] * % for LDPE and [10 to 20] * % for LLDPE. After the recent combination of BP's and Solvay's HDPE production and marketing businesses in Europe ([15]), becomes effective, BP's market share (including the JV) in HDPE will have [approximately doubled] * in a Western European market.

([14]) See Case COMP/M.1671 — DOW Chemical/Union Carbide (OJ L 245, 14.9.2001, p. 1).
([15]) Case COMP/M.2299 — BP Chemicals/Solvay/HDPE JV, 29.10.2001.

(80) Producers of polyethylene downstream linked to the ARG+ and belonging to the group of ethylene net buyers are in particular Borealis (which is not vertically integrated in ethylene production in the ARG+) and DSM (which has to source ethylene to a considerable extent from third parties on the ARG+ and whose production sites are directly supplied by parties to the transactions). Borealis has Western European market shares of approximately [10 to 20] * % for LDPE, around [2 to 8] * % for LLDPE and [10 to 20] * % for HDPE. Parts of these volumes are produced in Borealis' PE plant linked to the ARG+. DSM's market shares are between [10 to 20] * % for LDPE, LLDPE and HDPE, respectively. DSM is vertically integrated only as regards its plant in Geleen, whereas its PE production site in Germany, producing LLDPE and HDPE, is supplied with considerable volumes of ethylene from the merchant market. A further PE producer linked to the ARG+ and not vertically integrated in the ARG+ area is Polimeri with a production site in Oberhausen.

(81) These companies would therefore be in direct competition with the PE businesses of Shell and BP, on the one hand, and would be dependent on ethylene supply from the ARG+ on the other, either as non-vertically integrated companies upstream into ethylene or net ethylene buyers on the ARG+. These downstream competitors are [*inter alia*, supplied by parties to the transactions] *. With regard to these companies the said entities would share the incentives not to support their direct downstream competitors by the supply of economically priced ethylene. The interests of the combined entities are already now rather similar even if Shell's position (via Basell) currently is slightly stronger than BP's position in the markets for the different forms of PE in general. The similarity in market shares and structure has been very much reinforced by the Solvay/BP Chemicals/HDPE JV as this will lead to nearly identical market shares of Shell and BP in the field of HDPE. The contribution of Solvay's HDPE plant in the ARG+ to the JV may be seen as a consequence of the lack of upstream integration into ethylene in a market which is already now rather concentrated.

(82) The strong position of the parties to the transactions with regard to the supply of ethylene to downstream PE competitors is strengthened by BP's and Shell's position in linear alpha olefins (LAOs). LAOs, a further ethylene downstream product for which 3 % of the ethylene produced on the ARG+ is used, are a necessary co-polymer for the production of (HDPE). BP and Shell are the only producers of LAOs in Western Europe, having market shares between 30 % and 40 % for the year 2000 if the market is considered to be Western European-wide in scope (the remaining share relates to imports). The strong position in this field gives BP and Shell a further advantage over the downstream HDPE competitors and reinforces the similarity of the incentives as regards the ethylene supply in the ARG+.

2.5.2. **Ethylene oxide/Ethylene oxide derivatives**

(83) Ethylene oxide (EO) is a highly reactive ethylene downstream product, produced by the catalytic oxidation of ethylene at elevated temperature and pressure. 15 % of the ethylene produced on the ARG+ is employed for the production of EO, 73 % of the Western European EO/EO derivatives capacity is linked to the ARG+. Ethylene cost as a percentage of the total EO cost amount to approximately 70 %. After BASF which is not active on the merchant market, BP with a capacity of [400 to 500] * kt, including Erdölchemie and Shell with a capacity of [300 to 400] * kt are the largest producer of EO in Western Europe. EO is mainly used to produce ethylene glycol (EG), comprising mono-ethylene glycol (MEG) (ethylene cost amounting to approximately 63 % of the total production cost) and the by-products di-ethylene glycol and tri-ethylene glycol. Other EO derivatives are ethoxylates, ethanolamines, glycol ethers and akoxylates (ethylene cost amounting to approximately 63 % of the total production cost). There is also — compared to total capacity approximately 2,600 kt in Western Europe — a relatively small merchant market for sales of EO in Western Europe of [less than 1000] * kt.

(84) Shell's and BP's market shares in the Western European EO merchant market are [25 to 35] * % (Shell) and [40 to 50] * % (BP, including Erdölchemie). The next competitors in the EO merchant market are Ineos and Sasol with market shares in the range of [5 to 15] * %. Both undertakings produce the EO in plants linked to the ARG+ and, hence, are direct competitors of Shell and BP and dependent on ethylene supply within the ARG+ network.

(85) Shell/DEA and BP/Veba are also active in the production of MEG, as the most important EO downstream product. According to the Commission's market investigation their market shares each lie between approximately [5 to 15] * % on a Western European merchant market for MEG and they directly compete with Ineos (having a market share of around [15 to 25] * %), producing MEG in a plant in the ARG+ area and being, *inter alia*, supplied by parties to the transactions. The same situation applies to di-ethylene glycol and tri-ethylene glycol as all producers of MEG produce and sell these petrochemicals as bi-products.

(86) According to the Commission's investigation Shell and BP are active in further markets for EO derivatives and compete there with non-integrated ethylene consumers linked to the ARG. This is the case, for example, for the sale of forms of akoxylates by which they compete with Ineos and Sasol which have linked their correspondent production sites to the ARG+.

2.5.3. **Ethanol**

(87) The proportion of the ethylene production on the ARG+ used for ethanol, a further product downstream to ethylene, is somewhat lower compared to PE and EO. BP is active in the production of ethanol, having a market share of around [35 to 45] * % of synthetic ethanol in a Western European market, the next competitor is Sasol which has a market share of around [15 to 25] * % produces synthetic ethanol in a plant linked to the ARG+. The structural situation and the corresponding incentives would not change if, as submitted by the parties, agricultural ethanol were to be included in a general ethanol market. In these circumstances, BP's market share would be around [10 to 20] * %.

2.5.4. **Similar degree of vertical integration/similar incentives: arguments of the parties, conclusions**

(88) The parties submit that the vertical integration arising from the mergers does not create incentives to raise the ethylene prices to the detriment of downstream competitors. According to the parties, the incentives and the ability, successfully to raise rivals costs' by raising the price of a necessary input depend on two conditions: (i) sufficient market power upstream, and (ii) an appreciable market share shift to their downstream divisions by raising the costs of downstream non-integrated competitors. Furthermore, according to the parties the share shift in the downstream markets must lead to the gaining or strengthening of market power in the downstream derivatives market, so that prices can be raised in those markets. According to the parties, there are no appreciable incentives to raise downstream competitors' costs as the benefit for Shell/DEA and BP/Veba would be very small since such incentives arise only for downstream markets in which they themselves are active and with regard to volumes which are supplied to the ARG+ merchant market.

(89) First, it should be clarified that the Commission has not analysed whether the parties will, after the merger, achieve a dominant position in the downstream markets which would enable them to raise prices in the ethylene derivatives markets. The analysis of the collective dominance of the two entities in the ethylene market refers to the alignment of the merged entities' incentives in the (upstream) market for ethylene, which arises from their activities in the ethylene derivatives market. This incentive does not necessarily imply that the merged entities will be able to raise prices in the downstream markets. Such incentives already derive from the possibility to carry out a strategy to reduce the competitiveness of the competitors in ethylene derivatives by increasing their ethylene supply costs, thus squeezing their margins.

(90) Second, the ARG+ accounts for 42 % of the ethylene production capacity in Western Europe and, accordingly, for a major part of the ethylene derivatives production capacity in Western Europe. Downstream competitors of the merged entities which are not vertically integrated into ethylene on the ARG+ account for considerable market shares in the ethylene derivatives markets. The parties submit that only the share of the ethylene merchant market which is used for the production of the respective downstream product, not the total volume of ethylene used on the ARG+ for the respective downstream product (including captive volumes) may be taken into account. Even if this methodology is followed, the merged entities will nevertheless share the incentive to reduce the competitiveness of their downstream competitors. According to the figures presented by the parties, [35 to 40] * % of the ethylene sold on the ARG+ merchant market is used for the production of PE ([20 to 25] * % for HDPE, [10 to 15] * % for LDPE and [5 to 10] * % for LLDPE), further [10 to 15] * % are used for the production of ethylene oxide, and [0 to 5] * % are used for synthetic ethanol. Since more than [50] * % of the total merchant market volume for ethylene is used for products in markets where the parties hold considerable market shares, the merged entities have incentives to reduce the competitiveness of those downstream competitors which depend on ethylene supply from the merchant market. The production facilities of these competitors on the ARG+ for which the merchant ethylene is used also represent non-negligible capacity shares even on a Western European basis. According to the figures submitted by the parties, those production facilities account for Western European capacity shares between [5 to 15] * % for the different forms of PE (LDPE, HDPE and LLDPE), for a capacity share of [15 to 20] * % for ethylene oxide (including the volumes used captively for ethylene oxide derivatives), and for a capacity share of [20 to 25] * % for synthetic ethanol (for the respective market shares for the products on a Western European market see above recitals 76 to 78). Hence, even according to the methodology proposed by the parties, the new entities are in a position where it would be both feasible and plausible to exert pressure on their competitors downstream in order to reduce their ability to compete actively.

(91) The fact that the situation seems to be different with regard to further products such as ethylene dichloride/VCM does not alter the conclusion that BP and Shell are too vertically integrated to a similar degree and share similar incentives with regard to the supply of ethylene producers on the ARG+.

(92) In conclusion, it has been shown for several of the ethylene downstream products that due to the similar degree of vertical integration of Shell and BP the combined entities would share similar incentives with regard to the supply of ethylene in the ARG+ area. A comparison of the parties' market shares and those of their respective competitors' demonstrates that the new entities would be in a position where it would be both plausible and feasible to exercise competitive pressure on their competitors downstream in order to weaken their competitive potential and to gain additional market share on a long term basis. Furthermore, such pressure would have a high probability of success.

2.6. *The competitive situation on the downstream markets for ethylene derivatives does not limit the two entities ability for joint pricing strategy*

(93) The parties have submitted that there is a limit to the potential increase in ethylene prices on the ARG+ as most of the ethylene derivatives markets may be considered as Western European-wide in scope, some of them even as global. For this reason, the producers of ethylene derivatives linked to the ARG+ will not be able to pass the increased raw material costs on to their customers since they are exposed to competition from producers having their production site outside the ARG+ and in particular from imports into Western Europe. The parties submitted that this, in turn, would limit the potential for an increase of ethylene prices in the ARG+ by ethylene producers.

(94) According to the Commission's market investigation, it may be the case that the producers of ethylene derivatives in certain market situations will not be able to pass the increased raw material cost on to their customers due to the competition which they face from producers located outside the ARG+ and imports of the ethylene downstream product. However, such a limit for the increase of ethylene prices does not change the general incentives of the merged entities as, even if the ethylene prices cannot be increased above a certain limit, the merged parties would share the incentives to increase prices up to this limit, gain the profits of the downstream derivatives producers and reduce their competitiveness compared to their own ethylene derivative units.

2.7. ***Competition between the two new entities risks to lapse on the basis of a tacit allocation of contracts***

(95) In light of the contractual and geographical situation on the ARG ethylene market, there is a clear and easy-to-handle mechanism at the two new entities disposal to tacitly divide the market among them according to two closely related criteria: (i) continuity in long term contracts, and (ii) geographical proximity.

(96) The vast majority of ethylene supplies are based on long-term contracts, spot sales do not play any role in this market. As explained in more detail below (recitals 102 to 105), there is a high market transparency in terms of the parties to individual contracts and the volumes and reference prices involved. The ethylene production capacity is published in journals as CMAI, the volumes and the corresponding ethylene need of the respective derivative plants are known, and the owners of the infrastructure may also learn about actual throughput to individual customers.

(97) The Commission's market investigation has revealed that transport costs on the core ARG are a non-negligible factor. Therefore, contracts are primarily entered into by those ethylene producers and consumers which are located close to each other. This close relationship is often supported by the transport of the supplied quantities via privately/producer-owned extensions of the ARG pipeline in order to economise on transportation costs arising from the use of the core ARG. This allocation of customer supply contracts among the producers based on the proximity of the buyer to the own ethylene production site can also be applied to new customers. Such a strategy will significantly facilitated by the market structure post mergers. Whereas until now buyers in the Gelsenkirchen/Cologne area usually dual-sourced their supply from Veba (having a cracker in Gelsenkirchen) and BP (with Erdölchemie's cracker in Cologne), after the merger BP/Veba will control the total supply of those customers, supplying them partly by pipelines owned or under control of the merged entity. DEA, on the other hand, mainly supplies the Wesseling area and plants further to the south of Germany being directly linked to their Wesseling production site by extension pipeline, whereas Shell has natural access to consumption sites located in Rotterdam from its ethylene cracker and sea terminal in Moerdijk.

(98) For the avoidance of doubt, the Commission rejects the argument that the situation post merger would not differ from the current situation.

(99) Indeed, the fact that competition for certain customers is already limited for geographical and duration reasons does not mean that this situation will not be worsened. There is currently a certain degree of competition for contracts over the whole of the ARG, and also long-term contracts do actually change hands. […] *. Several parties and third parties stated at the hearing that they consider suppliers/customers in the whole ARG area, and not only those closely located to their sites. In addition, third parties like BASF indicated a significant number of contracts which they won or lost over the past years. It is true that Shell's and DEA's production sites are located at the ends of the ARG area. However, this does not mean that, after termination of DEA's CPO contract, they would not become competitors for contracts all over the ARG+. Furthermore, the possibility of swaps currently also enables suppliers to reach customers further away without incurring significant transport costs. Therefore, there is currently still a considerable degree of competition for expiring and new contracts throughout the ARG which could and would be eliminated.

(100) Besides and in addition to the tacit allocation of contracts, which affects the competition for new contracts it has to be expected that there will also be a tacit alignment of the duopolist's behaviour as regards the quarterly contract price negotiations with their current customers. Due to the similarity of incentives not to enhance downstream competitors' potential through cheap supplies of ethylene, any initiatives to lower prices, in order to keep the nominated volumes at the upper end of the possible ranges, will become unlikely after the merger.

(101) It is therefore likely that the market will be tacitly shared on the basis of the mechanisms described above.

2.8. ***The ethylene market is sufficiently transparent to allow for coordination between the two new market leaders***

(102) The parties argue that there is no sufficient transparency in the market. Although the vast majority of contracts contain a reference to the published ICIS quarterly contract price, the actual prices paid are secret as the individual discounts from the basic contract price are not disclosed.

(103) The Commission nevertheless takes the view that the ethylene market on the ARG+ is sufficiently transparent to allow for tacit coordination and the lapse of competition between the two new market leaders. Although the exact terms of individual contracts are not openly accessible, there is a high degree of transparency with regard to price trends and contract participants. The Commission's concerns mainly relate to the fear that the two new entities will not actively compete for the other's current customers, which are mainly linked by long term contracts, and therefore engage in a market-sharing based on continuity and geographic proximity. For this kind of tacit market-sharing, no individually detailed contract data and transparency is necessary. It was confirmed by several third parties that due to the very limited number of players in the market, the published data together with general market intelligence make it possible to determine whether contracts changed the supplier and who won them.

(104) The same holds true with regard to the lapse of any downward price initiatives in the quarterly price negotiations. Price reporting agencies publish reference prices for spot and longer term sales on a quarterly to weekly basis. These prices closely reflect the result of individual negotiations and apply to the majority of the contracts. Furthermore, for example ICIS-LOR, in its weekly market overviews, reports individual negotiations that allow experienced market players, due to the high concentration of the merchant market and the limited number of participants, to identify even the individual parties to a contract. In ICIS-LOR's reports of last year, the following passages have been published: 'A major German producer agreed a price of EUR 705, an increase of + EUR 20/metric tonnes over Q3 ([16]), with a major German consumer. The contracts represent large volumes and involve traditional price settlers.' 'Additional support was registered this week for the Q2 contract price agreed initially last week between a German producer and Benelux/Med consumer at EUR 640 FD', 'news came late today of an agreement in Germany between several major players for a Q1 price decrease of EUR 40/metric tonnes to EUR 665 FD', 'a German producer indicated that it had offered a EUR 30/metric tonnes decrease to all its customers, though by late Friday, these had failed to respond favourably'. Market participants declared that this information can easily be interpreted in a way that reveals the parties to the contract in question. In the light of this type of information available through publication to all market participants, activities of other competitors and price trends are transparent in the ethylene market.

([16]) i.e. the published contract price for the third quarter.

(105) It further has to be noted that the tacit coordination and the lapse of competition between the players does not require the entire transparency of all contract details. In order to monitor whether the other group follows the general price trend and the tacit pattern not to compete through price cuts, the data published by ICIS appear to be sufficient. The parties argue that if the ICIS price and reporting system were to be 'abused' by the parties to coordinate pricing strategies, and the contract partners considered that it no longer reflected market conditions, it would simply not be used any more and thus disappear as an element of transparency. However, the vast majority of contracts contain a reference to the ICIS price and are concluded for a long term. Any change in the pricing reference would only be possible at the end of the contract. During the lifetime of the contract, any change of the ICIS reference is generally foreseen in the contracts only in case ICIS does not publish a reference price any longer, and not in case this price is no longer considered as credible.

2.9. ***There are sufficient means of retaliation at the two players' disposal***

(106) The parties argue that there are no credible and efficient means of retaliation at the new entities' disposal to deter the other new entity from deviating from a pricing or market-sharing pattern. Due to the long term nature of the contractual relations in the ethylene market, opportunities to retaliate come up infrequently and with significant delay after the deviation. According to the parties, any attempt to retaliate via aggressive pricing would leave the retaliator with a costly low or zero margin contract for a long term making the measure disproportionately harmful in relation to the gain from deterring the deviating rival. The costs for retaliation and the disproportion are further increased by high transport costs which would occur if retaliation involved targeting a customer located further away.

(107) The Commission takes the view that the two combined new entities have sufficient means of retaliation to deter the other entity from deviating from parallel behaviour, both with regard to the tacit allocation of contracts and with the lapse of downward pricing initiatives in quarterly negotiations.

(108) Through the detailed pricing and negotiation information which is openly published by ICIS or CMAI, there is a high transparency of the pricing and contracting activities of the other competitors on the market. Consequently, it will be possible for both parties to closely monitor whether or not the other party follows an initiative to increase prices and, more generally, to monitor the duopolistic pattern of behaviour according to the criteria set out in recital 95.

(109) Both new entities will dispose of sufficient accessible volumes to be able to compete for the other's customers. In addition to its capacity on the ARG, Shell has privileged access to imports from outside the ARG area through its import terminal. In addition, Shell could shift the capacity which was used by third parties to own imports. As an ethylene producer, BP has preferred access to other producers' import terminals, as it can offer swap agreements between the Antwerp area and its production sites which are located at the Eastern end of the ARG. In addition, BP plans to increase the capacity of its Erdölchemie crackers in 2001/2002.

(110) Despite the mainly long-term nature of contractual agreements for the supply of ethylene, there is sufficient room for immediate reaction in response to any deviation from a parallel trend. There are a large number of contracts running in the market, which overlap in terms and expire on consecutive dates. Therefore, in addition to contracts for new volumes and involving new market participants, there are permanently contracts which terminate or need re-negotiation, and where one of the two new leaders could aggressively attack the other to retaliate for deviation from parallel behaviour.

(111) Moreover, as a general point, the necessity and sophistication of a retaliation mechanism cannot be analysed without taking the incentives and abilities to deviate from a behavioural pattern into account. The retaliation mechanism must be sufficiently plausible and effective to counterbalance the existing degree of probability and incentives to deviate in the market situation of the individual case. In the present case, the parties' argument related to the long-term nature of the contracts also applies to the possibilities to deviate. The possibilities for retaliation occur with the same frequency as the possibilities for deviation, and therefore are sufficiently frequent and effective. In addition, if in the parties view market interaction is relatively slow and infrequent compared to other markets, then the possibilities for deviation in the first place are as well, and underpin the probability and stability of the market sharing pattern. The same applies to the cost argument. If the parties take the view that retaliation is costly, then the cost deviating by winning a contract in deviation from a coordinated pattern in the first place is very high, too, and reduces the likelihood of such action. This is particularly true in the light of the likely market-sharing pattern based on continuity and proximity to be followed by the two new entities. Any deviation from that pattern would mean that the deviating entity would bid for a contract which has been in the hands of the other competitor for a long time and where he has preferred competitive ability to supply. Consequently, the deviator would have to invest considerably to bid for this contract where he has a less-favourable supply position, which decreases his incentives to do so.

(112) Retaliation is also possible with regard to the quarterly negotiations on the basic contract price in long term contracts. At that stage, a change of the supplier and therefore an attempt to win the contract itself is not possible. However, due to the two new entities' strong influence in the published price-setting mechanism, retaliation is possible in the form of the agreement and publication of a lower quarterly contract price, which then results in a significant pressure on the other party to follow this trend, as its customers will refer to the lower price agreed by the other party with its customers.

(113) Moreover, BP/Veba will be able to use its influence over the ARG company as a deterring factor vis-à-vis Shell/DEA. Due to its ability to block essential decisions on the use of the ARG, BP/Veba is in a position to […] *, which could harm Shell/DEA's competitive position. Shell currently is an active user of the ARG pipeline, and DEA has to be considered as a potential user after the expiry of its contract with CPO.

(114) On the other hand, Shell controls one of the import terminals linked to the ARG. […] * Thus, Shell/DEA could react to any deviation by BP/Veba through restricting the access to its terminal and blocking the actual handling of incoming BP loads, which would have an immediate impact on BP/Veba's position on the market.

(115) In conclusion, there is a variety of retaliation means at the future duopolists' disposal, which could be used separately and in different combinations. They are sufficient to monitor, support and penalise any deviation from tacit parallel behaviour of the two new entities.

2.10. ***There are high barriers to entry given the limited possibilities of imports and the control of the necessary facilities***

(116) Imports are not likely to counterbalance the two new entities market position. In 2000 imports amounted to a peak of approximately 15 % of the overall consumption due to unscheduled cracker downtimes, whereas they usually account for around 10 % of total (captive and merchant) demand. A large proportion of these imports are related to ARG producers and consumers that import material from their own production sites outside the ARG for captive use, such as Exxon, BP and

Borealis. Ethylene imports into the ARG-pipeline have to pass via one of the five import terminals located at the North Sea coast. There are no other economically viable means of transport to feed consumers linked to the ARG pipeline. All five import terminals are owned by ethylene producers: Shell, BASF, Exxon, Atofina (via FAO) and Dow. There are no independent terminal and storage providers that could offer capacity for third parties. Of the existing overall capacity, only a small proportion is made available for third parties, whereas the majority of the terminals capacity was used for the owners' own imports. Of the total volumes imported via the individual terminals, only 10 to 20 % were terminalled for third parties.

(117) The spare capacity which the terminal owners do not use for their needs is furthermore primarily reserved for swaps with other terminal owners. By these exchange agreements terminal owners allow other owners to use their terminal in case of capacity bottlenecks, and acquire in turn the right to use the other's terminal in case they themselves do not have enough spare capacity to handle incoming import volumes. […] * Due to these agreements, the capacity available for third parties is further reduced.

(118) In addition, the storage facilities of most of the import terminals are to a significant extent used for the storage of the owners' production at the crackers nearby, and only a proportion is used to store imported material. There are indications that the storage capacity was not expanded in parallel with production capacity increases, which results in a decreasing trend of available capacity for third party imports. There are no indications that the terminal capacity will be significantly increased in the foreseeable future. In addition to the considerable cost for a large-scale terminal estimated at around EUR 30 million, environmental regulations restrict the building of additional capacity at the coast.

(119) Furthermore, ethylene consumers, especially those which are not vertically integrated upstream into ethylene and therefore are not in a position to offer product swaps, indicated that on the basis of their agreements with the terminal owners they are not in a position to secure their demand for ethylene by imports on a long-term basis. Even if such consumers have terminalling contracts, for contractual and practical reasons they are not able to enter into corresponding long-term supply contracts. Practical problems may arise in particular from the order of berthing of ships and ship vetting. In contractual terms, it appears to be very common that terminalling contracts are linked to the existence and duration of a supply agreement with the terminal owner and that the volumes for which the terminal is made available are at a certain ratio with the volume directly supplied by the terminal owner. In addition, such contracts partly provide for certain rights of the terminal owners whereby the ethylene purchaser is obliged to negotiate with the terminal owner upon direct supply instead of using the terminal. Therefore, even if this type of consumer has concluded a terminalling agreement, it can make use of imports only on a case-by-case basis for spot volumes. There was agreement among the majority of the ethylene consumers that it is not possible to import significant volumes of ethylene on a long-term basis into the ARG. Imports are considered only as a buffer for additional spot volumes, but not as an alternative to cover a large proportion of basic demand.

(120) In addition to the bottleneck situation in terms of availability of terminal capacity, terminalling and transport cost are another significant obstacle to imports. Transport costs have been estimated at between EUR 15 to 55/t from European sources up to EUR 150/t from sources in the Middle East. Whilst according to third parties these transportation costs can partly be compensated by lower purchasing prices for ethylene supplied from regions with low feedstock and production cost, this is not the case for the additional costs to be incurred for further transporting these imports from the port onwards. To the shipping costs, terminalling fees between [approximately EUR 25 and 45/t] * have to be added. For consumers that are not located close to the import terminal, transport costs on the ARG pipeline also have to be taken into account, which may reach EUR 70/t for the longest transports according to the published ARG throughput tariffs for third parties [17]. Numerous ethylene consumers, including one of the most important purchasers on the merchant market, qualified these costs as prohibitive and indicated that they considered imports not to be an economically viable alternative. The remaining consumers agreed that apart from smaller spot volumes imports were not economic on a larger scale.

[17] Third parties [...]* can obtain [...]* discounts from these figures. [...]*.

(121) It can therefore be concluded that imports will not be able to put sufficient competitive pressure on the two new entities.

2.11. ***New market entry through the building of new capacity is not expected to a significant degree***

(122) Ethylene production capacity utilisation rates are estimated at around 96 % in Western Europe and even higher in the ARG area. Therefore, significant volumes to exercise competitive pressure on the market could only derive from new capacity to come on stream in the near future and which would not be absorbed by increased captive use, but would be available for the merchant market. However, this is not the case for the ARG-area.

(123) Due to extremely high investment costs, which are estimated at over [EUR 500 million] * for an economically viable […] * kt ethylene cracker, the building of an entirely new cracker on the ARG pipeline, either by a completely new entrant in the market or by an existing supplier is highly unlikely. The parties agree that a large-scale new entry cannot be expected in the foreseeable future.

(124) However, the parties submit that there are constant capacity increases and de-bottleneckings of existing plants, which exercise significant pressure on the market. According to the parties, although a large proportion of these capacity extensions will be committed to captive use in the medium and long term, they would effectively constrain existing suppliers' market power during the time lag between ethylene capacity expansion and the corresponding increase in derivatives production.

(125) As a general point, any de-bottlenecking of existing plants does not increase the number of existing suppliers on the market, and in particular does not provide a new, independent force on the merchant market. Furthermore, as accepted by the parties, ethylene supplies mainly rely on long-term contracts. Consequently, volumes which are on the market only for a limited period of time until the downstream consumption of the respective supplier is increased accordingly, cannot be considered as a competitive constraint with regard to the usual long term supply relations.

(126) The most important foreseeable increase in existing capacity is an additional 600 kt at Dow's Terneuzen facility scheduled for the end of 2001. However, according to the Commission's market investigation these new volumes are intended for captive use in DOW's downstream derivatives capacity and it is expected that […] *. Also the limited number of other projects is driven by the enlarged captive demand of the respective undertaking. This is the case for the projects of the net buyers […] * as well as the capacity increases of integrated producers with captive consumption […] *. The latter projects, in addition, only relate to smaller volumes.

(127) As the huge majority of these new volumes will, at least in a medium-term perspective, be captively used and not sold on the merchant market the envisaged capacity increases will not be able to counter the joint dominance of the merged entities. Furthermore, there are several new projects of non-integrated producers which will increase ethylene demand, such as a new propylene oxide/styrene monomer plant at Rotterdam, which Bayer will operate through a joint venture with Lyondell and which is expected to come on stream in the second half of 2003 ([18]). Therefore, the remaining volumes of the increases in capacity will be absorbed by new downstream ethylene production sites and will not be suitable to significantly alter the competitive situation on the market in the short and medium term.

([18]) The port authority of Rotterdam is currently building a pipeline link from Rotterdam to the ARG on the basis of Shell's Moerdijk pipeline, see the Article 'Investing in pipelines' in ACN/CMR/ECN, Port of Rotterdam supplement, September 2001, pp. 21 to 22.

2.12. ***There is no sufficient countervailing buying power***

(128) There are a number of net ethylene purchasers connected to the ARG pipeline. The demand of the five leading net buyers (Solvay, Borealis, Basell, Celanese, and LVM) accounts for around [50 to 60] * % of the total merchant market. Joint purchasing agreements are limited to CPO, which negotiates ethylene supplies for Celanese, Clariant and Basell, and Degussa's handling of Vestolit's and Sasol's requirements. The Degussa arrangements will cease […] *. As regards CPO, the respective agreements are a result of the divestment of former members of the Hoechst group, for which economic supplies had been secured at the time. CPO's contracts with its customers […] *. Furthermore, nearly half of CPO's demand […] *. Basell today has its own ethylene cracker and is likely to be able to procure remaining demand on economic terms via its parents. Against this background, CPO itself expressed the expectation that it will not continue to exist in the present form after the expiry of its supply contracts with DEA and Veba.

(129) The parties submit that ethylene consumers have a significant flexibility in their demand, whereas ethylene suppliers are forced to sell their volumes on the market, due to limited storage capacities for ethylene and pressure for high utilisation rates as a result of high investment costs. Consequently, ethylene customers could resist any price increase by lowering their off-take volumes, fulfilling their derivatives contracts from their stocks and putting ethylene producers under significant pressure to sell their product which they are not able to store. However, the consumer's situation does not appear to counterbalance the new entities' power.

(130) First, ethylene crackers on the ARG are running at extremely high utilisation rates of 97 % and more. Therefore, ethylene producers do not appear to be in a situation where they already suffer from low-capacity utilisation and would need to keep existing levels at any price to avoid significant losses. In addition, consumers of ethylene share the interest of high utilisation rates of their ethylene-processing facilities to minimise average unit costs with the ethylene producers. Derivatives producers confirmed that their plants are also designed to run at a capacity utilisation of 90 % or higher in order to be profitable. Therefore, consumers do not enjoy greater flexibility than the ethylene producers in that respect. Furthermore, ethylene producers do in fact enjoy a certain flexibility in output by maintaining high utilisation rates. Imports are one means of flexibility, as they could be reduced in the short term to react to a reduction in demand. Another option to buffer demand movements are time swaps. There are always some crackers out of production due to scheduled or unscheduled maintenance works. Suppliers could agree to supply the other's customers during its cracker's downtime, while getting the product back at a later stage in the year.

(131) Second, the usual long-term contracts allow only for limited decreases of the contract volumes. In general, there is a range of approximately […] * variation in the volumes actually purchased in relation to the initially agreed contract figure, whilst other contracts only provide for hardship clauses which allow for adjustments only in exceptional situations. The potential for ethylene customers to respond to price increases by a threat to reduce demand is therefore limited.

(132) Third, the allegedly greater difficulty in storing ethylene than derivatives produced by ethylene customers does not create a sufficient demand flexibility. This argument is based on the assumption that ethylene consumers would lower their production and consequently their demand for ethylene, while fulfilling their supply obligations with their derivatives customers, out of their stock. However, there are several elements contradicting this assumption. In general, keeping stocks to a larger degree

than is necessary for own operational purposes and buffering movements in derivatives demand, is also costly and uneconomic for derivatives producers. Investment in huge additional storage capacity in order to be able to react to a possible attempt to raise prices (of which the occurrence and timing is unknown) by ethylene producers therefore does not seem a viable and economic option for derivatives producers. To counterbalance an attempt to raise the quarterly contract price in a negotiable contract, it would be necessary to work three months off stocks. However, the usual stocks of ethylene derivatives producers currently are of a maximum 30 days. Even higher stock volumes would be required to resist price rises at the point of the negotiation of a long term contract running for several years. Furthermore, derivatives producers cannot anticipate when ethylene producers will start their attempt to increase prices. On the other hand, they need their stock for their own operational purposes to buffer unexpected production and demand movements. Therefore, an attempt to raise prices may occur at a point in time when derivatives producers' stocks are low, due to unexpected demand increases or unscheduled production downtime. In such a situation, the ability to lower ethylene demand and derivatives production is even more limited. It therefore has to be concluded that the incentives and possibilities for a lasting reduction of demand are limited and therefore are not suitable to counterbalance an attempt to increase prices.

2.13. ***Conclusion on collective dominance***

(133) It is therefore concluded that the two proposed concentrations would result in the creation of a collective dominant position of the two new entities Shell/DEA and BP/E.ON on the market for the supply of ethylene on the ARG+ pipeline network.

3. COMMITMENTS

(134) On 28 November 2001 the parties in this case and of case M.2389 — Shell/DEA offered certain commitments to remove the competition concerns which the Commission had identified in its Statements of Objections of 24 October 2001. The commitments will be summarised and assessed in the following points.

(135) The full text of the commitments of the parties is set out in the Annexes.

3.1. ***Commitments offered by Shell/DEA***

(136) Shell and DEA commit to make available access to Shell's terminal facilities at Moerdijk, Netherlands, and to Ethyleen Pijpleiding Maatschappij BV (EPM)'s pipeline from Moerdijk to Lillo (Antwerp) to one or more users for a total aggregate ethylene volume of up to 250 thousand metric tonnes per annum. The terms on which such access is to be made available are outlined in an attached model Ethylene Terminalling Agreement. This access will be made available from 1 January 2003 until at least 31 December 2012 on fair and non-discriminatory terms to any one or more existing or prospective competitor(s) or customer(s) for ethylene on the ARG+. Preference will be given to such competitors and customers who do not own a terminal connected to the ARG pipeline.

3.2. ***Commitments offered by BP/E.ON***

(137) BP and E.ON undertake to divest any two of the three BP/Veba Oel shareholdings in the ARG, together with all equity and voting interests attached to such shareholdings to a suitable independent purchaser approved by the Commission.

(138) For an interim period, until the shareholding in the ARG is divested, the parties undertake not to exercise their blocking minority with regard to decisions requiring a [special] * majority. The parties undertake to vote any two of their shareholdings in the ARG in accordance with the unanimous decisions of the other shareholders, with regard to all decisions which require a [special] * majority. As long as E.ON continues to hold a controlling interest in Degussa, the parties further undertake that BP and/or E.ON will also vote the rights attached to all three of the BP/Veba Oel shareholdings in accordance with the unanimous decisions of the other shareholders in relation to decisions requiring a [special] * majority.

(139) BP/E.ON undertakes that they will guarantee to [an ethylene customer] * that ethylene delivered via the ARG pipeline to Gelsenkirchen will be made available at [that customer's] * plant in the event of the supply contract between […] * being terminated with effect from […] *or thereafter. This guarantee is made regardless of the source from which [that customer] * may decide to purchase ethylene. It will last for a period of […] *, with an option exercisable by [that customer] * to renew for a further period of […] *.

3.3. ***Assessment***

(140) The major competition concern identified by the Commission is that the elimination of two independent ethylene suppliers on the merchant market will lead to a collective dominant position of the two new entities. The underlying infrastructure in the ARG+ area, namely import terminals and pipelines, is a key factor in that concern in two respects. The access to and influence in the infrastructure strongly enhances the market power of the two new entities […] *. Thus, the infrastructure is a decisive factor for competitive interaction in the present market for ethylene, and its degree depends very strongly on the open accessibility of the infrastructure means. Both commitments taken together provide and guarantee the openness of this essential infrastructure.

(141) The opening of Shell's import terminal for third party import volumes of up to 250 kt annually will strongly enhance the availability of ethylene on the ARG market from competitive and independent sources. Several third parties identified the non-accessibility of import terminals on a long-term basis, for considerable amounts and for competitive prices as the major obstacle for imports. Due to the fact that in the light of extremely high investment costs the entry of a completely new supplier on the market is highly unlikely in the foreseeable future, imports are the only source of additional, independent ethylene supplies into the ARG+ market. The volumes covered by the commitment are of a size which is suitable to considerably constrain the new entities' competitive potential. 250 kt equal the annual capacity of one whole smaller-sized cracker, such as the ones operated by DEA. If all volumes were contracted and imported, this would equal the installation of a new independent ethylene production site on the ARG. It would also represent an increase of the current third party imports by nearly 400 %. The terms of access proposed by Shell will allow for non-discriminatory, long term access to the terminal at competitive prices, and will give a preference to non-terminal owners as terminal owners dispose of their own importing facilities.

(142) There is a high probability that these volumes will be imported as several third parties were interested in imports on a long-term basis and sufficient volumes of ethylene are available in particular from Saudi Arabian sources.

(143) The divestiture of the import terminal to a third party, which in theory would completely eliminate the control of Shell/DEA over this infrastructure facility, does not appear to be a viable option. First, the terminal is not workable without inter-linked storage facilities. These ethylene tanks are themselves integrated in the cracker facilities and operations. A large proportion of the terminal storage therefore is used at unforeseeable rates for fluctuations in cracker output and demand.

(144) Second, open and non-discriminatory access to the terminal would only be guaranteed by a buyer who is not active in ethylene or ethylene derivatives, and thus does not have any own business interests related to the terminal. In light of the high cost of the terminal and the need for significant market intelligence in relation to ethylene to economically operate the terminal, it is highly unlikely that such an independent buyer could be found.

(145) The influence of BP/Veba in the core ARG pipeline through its shareholding and its blocking rights in the operating company is another element restricting open access to infrastructure and thus enhancing the parties' market power. In addition, these shareholdings restrict the competitive potential of other non-shareholder suppliers. The divestiture of two of the three shareholdings of a combined BP/E.ON will entirely eliminate the decisive influence of this group in the ARG company. After this divestiture, BP/Veba will no longer hold any preferred blocking rights and its position will be reduced to that of the other shareholders. In addition, the entry of new shareholders into the ARG company will broaden the different interests which are represented by the shareholders in the company and thus guarantee the common carrier character of the ARG, without preferring any particular supplier's or customer's interests. The interim undertaking offered by BP/Veba will provide for an immediate elimination of BP's veto right with regard to essential decisions on […] *. This will reduce BP's position to that of a normal shareholder until the divestment procedure is completed and thus will immediately remove the substantive concerns related to BP/Veba's combined shareholding in the ARG company. The commitment also removes any concerns resulting from the shareholding of Degussa, which belongs to the E.ON group and is not part of the present transactions.

(146) Apart from eliminating BP/Veba's strong foothold in infrastructure as a strengthening element of their market power, the reconstitution of the ARG as a common carrier will have two major effects which will considerably improve the competitive situation in the ARG area and thus counterbalance the new entities' market position. First, it will enhance competition through existing suppliers on the ARG. The open access to the pipeline at competitive cost should allow existing suppliers to actively compete for customers over the whole of the ARG area, increase customer's choice between suppliers and remove the ability of the two new entities to share customers according to the criteria set out above in point 95. Second, and equally important, the competitive potential of Shell's commitment to open the import infrastructure can only become fully effective if it is ensured that the additional volumes obtained from independent outside sources can be transported economically to locations all over the ARG up to its eastern end.

(147) BP/Veba's commitment to provide access to ARG supplies for the ethylene customers located at [a site in the Rhine/Ruhr area] * (currently […] *) removes the remaining bottleneck infrastructure which is under control of BP/Veba. It eliminates any possibility that BP/Veba will remain protected from competitive constraints originating from alternative ARG suppliers with regard to these customers. BP/Veba will no longer be able to cut off these customers from the ARG via the denial of access to the proprietary pipeline linking these customers with the ARG. This will allow for competition on equal grounds also for these buyers, and will remove another instrument that would facilitate tacit market sharing between the two new entities. There are no other ARG+ connection pipelines under the control of the future duopolist entities which could be used to cut off ethylene consumers from competitive supplies over the ARG.

3.4. ***Conclusion***

(148) It is concluded that the commitments offered by the parties assessed in combination will remove one of the major bases of their market power. They allow for sufficient new competitive constraints which will: (i) counterbalance the new entities market position; (ii) deprive them of their possibility to refrain from competing actively on the market, and (iii) eliminate the possibility of tacit market sharing. On that basis, it is concluded that no collective dominant position will be created on the market for ethylene in the ARG+ network and that the competition concerns expressed in the Statements of Objections are resolved.

VII. **CONDITIONS AND OBLIGATIONS**

(149) Pursuant to the first sentence of the second subparagraph of Article 8(2) of the Merger Regulation, the Commission may attach to its decision conditions and obligations intended to ensure that the undertakings concerned comply with the commitments they have entered into vis-à-vis the Commission with a view to rendering the concentration compatible with the common market.

(150) The achievement of each measure that gives rise to the structural change of the market is a condition, whereas the implementing steps which are necessary to achieve this result are generally obligations on the parties. Where a condition is not fulfilled, the Commission's decision declaring the concentration compatible with the common market no longer stands; where the undertakings concerned commit a breach of an obligation, the Commission may revoke its clearance decision, acting pursuant to Article 8(5)(b) of the Merger Regulation, and the parties may also be subject to fines and periodic penalty payments in accordance with Articles 14(2)(a) and 15(2)(a) of the Merger Regulation ([19]).

(151) In view of the foregoing, this Decision must be conditional upon full compliance with the undertaking involving divestiture of the shareholdings in the Aethylenrohrleitungsgesellschaft mbH & Co. KG and the interim undertaking to exercise the votes of any two of the three shareholdings in the same way as other shareholders as set out in points 1, 2, 3, 8 and 9 in connection with 30 of Annex I, as these bring about the structural change of the market. The same applies to the commitment relating to access to the [pipeline in the Rhine/Ruhr area] * as set out in points 1 and 2 of Annex II. On the other hand, the other parts of the undertakings set out in points 4 to 7 and 10 to 29 of Annex I and point 3 of Annex II, which refer to the procedures shall be obligations upon them, as they aim at implementing the structural change of the market.

VIII. **CONCLUSION**

(152) For the reasons set out above, and subject to full compliance with the commitments given by the parties, it must be concluded that the proposed concentration does not create nor strengthen a dominant position as a result of which effective competition would be significantly impeded in the common market or in a substantial part of it. The concentration is therefore to be declared compatible with the common market pursuant to Article 8(2) of the Merger Regulation and with the EEA Agreement pursuant to Article 57 thereof subject to compliance with the commitments set out in the Annexes,

HAS ADOPTED THIS DECISION:

Article 1

The notified operation whereby BP, together with E.ON, would acquire joint control of Veba within the meaning of Article 3(1)(b) of the Merger Regulation is declared compatible with the common market and the EEA Agreement.

Article 2

Article 1 is subject to compliance with the conditions set out in points 1, 2, 3, 8 and 9 in connection with 30 of Annex I and in points 1 and 2 of Annex II.

([19]) See the Commission Notice on remedies acceptable under Council Regulation (EEC) No 4064/89 and under Commission Regulation (EC) No 447/98.

Article 3

Article 1 is subject to compliance with the obligations set out in points 4 to 7 and 10 to 29 of Annex I and in point 3 of Annex II.

Article 4

This Decision is addressed to:

BP plc
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1 Finsbury Circus
London EC2M 7BA
United Kingdom

E.ON Aktiengesellschaft
Beningsenplatz 1
D-40474 Düsseldorf

Done at Brussels, 20 December 2001.

For the Commission
Mario MONTI
Member of the Commission

ANNEX

The full original text of the conditions and obligations referred to in Articles 2 and 3 may be consulted on the following Commission website:

http://europa.eu.int/comm/competition/index_en.html