



## EUROPEAN COMMISSION

Brussels, 29.11.2017  
C(2017) 7816 final

<p>In the published version of this decision, some information has been omitted, pursuant to articles 30 and 31 of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...]</p>	<p><b>PUBLIC VERSION</b></p> <p>This document is made available for information purposes only.</p>
---	--

**Subject: State Aid SA.48816 (2017/N) – The Netherlands – Environmental protection through residual CO<sub>2</sub> delivery to greenhouse horticulture**

Sir, Madam,

### **1. PROCEDURE**

- (1) Following pre-notification contacts, the Dutch authorities notified the abovementioned aid measure on 28 July 2017. Further clarifications requested by the Commission were received on 13 October 2017.

### **2. DETAILED DESCRIPTION OF THE MEASURE AND THE AID**

#### Introduction to the project

- (2) The Dutch authorities intend to grant investment aid to OCAP CO<sub>2</sub> B.V. (hereafter "OCAP") for the construction of an infrastructure for the off-take of waste CO<sub>2</sub> and delivery of this CO<sub>2</sub> to greenhouses in PrimA4a in the Greenport of Aalsmeer, where it is used to enhance crop growth. This avoids using (the CO<sub>2</sub> in) flue gases by burning natural gas. The primary objective of the aid measure is to increase environmental protection by reducing the use of primary energy sources for conventional forms of CO<sub>2</sub> generation for horticultural processes.

Zijne excellentie de heer Halbe ZIJLSTRA  
Minister van Buitenlandse Zaken  
Rijnstraat 8  
NL - 2515 XP Den Haag

- (3) The notified investment is the first step in the development of a larger CO<sub>2</sub>-infrastructure, ultimately supplying CO<sub>2</sub> for 220 hectares net glass surface of horticulture.

#### Background

- (4) PrimA4a is an area of 380 hectare (gross surface) within the Greenport Aalsmeer destined for horticulture development, of which 160 hectare is existing horticulture area and 220 hectare is to be newly developed.
- (5) The Greenport of Aalsmeer is one of the largest horticultural centres in the Netherlands. The province of Noord-Holland and the municipalities have set an agenda for the modernisation and restructuring of the Greenport. One of the main objectives is to provide for the establishment of sustainable conditions such as a CO<sub>2</sub> network.
- (6) Greenhouses need CO<sub>2</sub> for their crop growth in that an increased CO<sub>2</sub> concentration enhances the growth. In the course of the years, the dosing of CO<sub>2</sub> has become an important production factor for growers.
- (7) The currently existing 65 hectares of greenhouses (net glass surface) in PrimA4a produce their own CO<sub>2</sub> using cogeneration systems or gas fired boilers, also in summer when heat is not needed (so called "summer heating"). The availability of external CO<sub>2</sub> and in particular waste CO<sub>2</sub> from industry enables the growers to avoid this summer heating and to save on the use of natural gas in producing their own CO<sub>2</sub>.
- (8) In the framework of the so called "Green Deal" concluded in 2014 between the Dutch national government, the Province of Noord-Holland, the municipality Haarlemmermeer and private companies amongst which OCAP, the intention was expressed, amongst others, to provide CO<sub>2</sub> through a pipeline to greenhouses. The Green Deal consists of an informal public-private partnership in which parties express their intentions with regard to sustainable initiatives to remove certain barriers for these initiatives to be realised.
- (9) Currently, OCAP already supplies waste CO<sub>2</sub> originating from a Shell hydrogen production plant in Rotterdam and from the bioethanol plant of Alco<sup>1</sup> and destined to greenhouses in the areas Westland, Oostland and Zuidplaspolder. OCAP owns a CO<sub>2</sub> transport pipeline through which the CO<sub>2</sub> is transported. The CO<sub>2</sub> is compressed by OCAP and subsequently transported through the pipeline to be delivered to CO<sub>2</sub> buyers in the region (the greenhouses). Almost the entire volume of CO<sub>2</sub> available from those sources is already supplied to the existing areas. A limited amount of extra capacity has become available at Shell, which opens the opportunity to set up a project to extend the CO<sub>2</sub> delivery to the PrimA4a area.

#### Beneficiary

- (10) The beneficiary of the aid is OCAP. OCAP is a full daughter of Linde Gas Benelux B.V., a supplier of industrial gases.

---

<sup>1</sup> After the bankruptcy of Abengoa, Alco Group acquired and restarted the plant.

### Detailed description of the project

- (11) The notified investment consists of the first phase of the realisation of the CO<sub>2</sub> network in the PrimA4a area. The overall scope of the project (phase I and II) consists of a transport pipeline, a reduction station and a distribution grid which will connect the existing main pipeline (in green on the below picture) to the new area southwest of Hoofddorp and east / southeast of Aalsmeer (in blue).



- (12) In the first phase (the notified investment), a transport pipeline and reduction station will be built which will connect the PrimA4a area with the main pipeline. This first phase only includes a limited distribution grid to the currently existing greenhouses (65 hectares net glass surface). The majority of the distribution pipelines will be added in a second phase. This would add another 155 hectares net glass surface of greenhouses to the region. The major risk for the case at hand is the pace of development of the new horticulture areas. To mitigate this risk, the distribution pipelines will be realized only when the growers are building their greenhouses. This principle does not apply for the transport pipeline which must be built in advance of the development of the areas.
- (13) The aim is to realise energy savings in two ways:
- (1) *avoiding summer heating*
- (14) The key problem is that CO<sub>2</sub> is mostly needed in the summer when heat demand is low. Because of the importance of CO<sub>2</sub> dosing, growers use their energy

systems to produce CO<sub>2</sub> although the heat is not needed. This is called “summer heating”. The problem of summer heating is growing: much research effort is put into increasing the energy efficiency of greenhouses, for example in developing more energy efficient crop growth strategies. This reduces the demand for heat in summer even further. In buying the needed CO<sub>2</sub> from OCAP, the growers can stop using their cogeneration systems or gas fired boiler for the production of CO<sub>2</sub> when heat is not needed.

- (15) Based on market analysis in the area PrimA4a, it is expected that after full realisation, 75% of greenhouses in the area would buy CO<sub>2</sub> from OCAP (165 hectares). This would result in an annual avoidance of 12 million m<sup>3</sup> natural gas, corresponding to 21 kton CO<sub>2</sub> emissions (related to summer heating).
- (16) With the CO<sub>2</sub> supplied by OCAP the growers can optimize the operation of their cogeneration or boiler facility. It secures that the cogeneration or boilers only have to be used when heat is needed and not for the sole purpose of producing CO<sub>2</sub>. It also enables the greenhouses to operate their cogeneration more flexibly and use the cogeneration mainly during peak moments when the produced electricity is worth most.

*(2) Switching to renewable energy*

- (17) When greenhouses switch to renewable energy and stop using natural gas, they lose their own source of CO<sub>2</sub>. Therefore the availability of affordable CO<sub>2</sub> from other sources, such as OCAP, is an important prerequisite for the greenhouses to consider this switch and therefore for the sustainable development of the PrimA4a greenhouse area. The total use of natural gas covering the heat demand of the expected 165 hectares of greenhouses supplied with CO<sub>2</sub> is estimated at 64 million m<sup>3</sup> natural gas. Large energy savings can be realised when the greenhouses switch to renewable energy.
- (18) Next to the energy savings described above, the Dutch authorities explained that the availability of affordable CO<sub>2</sub> from OCAP enables the growers to enhance crop growth even further due to the high quality of the CO<sub>2</sub> and by dosing more CO<sub>2</sub> than before. This also reduces the specific energy use per unit produced.
- (19) The availability of waste CO<sub>2</sub> is an important prerequisite for this sustainable development. The Dutch authorities explained that this market is characterised by relative scarcity. The main supplier of CO<sub>2</sub> for phase 1 will be Shell. Shell has invested in the optimisation of its hydrogen plant to enable a limited increase of CO<sub>2</sub> supply to OCAP. The Dutch authorities explained that commercial negotiations have been performed at arms length leading to a contractually agreed price for the supply of CO<sub>2</sub><sup>2</sup>. For the second phase of the project, OCAP is investigating the opportunities for receiving extra exhaust CO<sub>2</sub> from other sources. In this context, the feasibility of capturing, purifying and transporting CO<sub>2</sub> from new sources such as waste incinerator AEB or Tata steel is being studied.

---

<sup>2</sup> The amended supply agreement was signed already on 14 August 2005.

### Financial viability of the project

- (20) The total investment costs amount to EUR 5 460 000 for the notified phase I investment and to EUR 7 000 000 for phase I and phase II combined. The eligible costs are the investment costs for phase I.

	<b>Phase I (notified investment)</b>	<b>Phase II</b>
Transport pipeline	[EUR 3 000 000 – 4 000 000]*	
Reduction station	[EUR 500 000 – 1 500 000]	
Primary pipeline	[EUR 0 – 500 000]	
Distribution pipelines	[EUR 500 000 – 1 500 000]	[EUR 500 000 – 1 500 000]
Connections	[EUR 0 – 500 000]	[EUR 0 – 500 000]
Preparation	[EUR 500 000 – 1 500 000]	[EUR 0 – 500 000]
<i>Total</i>	<i>EUR 5 460 000</i>	<i>EUR 1 540 000</i>

- (21) As also future areas (Aalsmeer) that are further away from the primary pipeline have to be supplied, the CO<sub>2</sub> pressure will be reduced relatively close to the target area. The existence of higher pressure in the grid requires the construction of the pipeline out of steel.
- (22) The price OCAP is charging in general (in other areas) for delivery of CO<sub>2</sub> to the greenhouses lies between EUR 47 and 79 per ton, depending on the purchase volume. The Dutch authorities explained that since 2010, prices for natural gas decreased which has also influenced the sales price of CO<sub>2</sub>. The more hours a certain installed capacity is used, the lower the (average) costs per supplied ton CO<sub>2</sub> are. Prices are thus being set on contracted supply capacity and the actual full load off-take hours. The calculations have been made at an average price of EUR [50-60]. This price is based on the experience of selling CO<sub>2</sub> by OCAP in the existing situation. A number of growers in the PrimA4a have signed for the intention to buy CO<sub>2</sub> from OCAP at this price whenever the project is realised.
- (23) The Dutch authorities explained that the sales price is mainly influenced by the alternative CO<sub>2</sub> sources at the disposal of the greenhouses. The growers will pay a price per ton, which is lower than the price of liquid CO<sub>2</sub> and also lower than the costs they have to make for producing CO<sub>2</sub> themselves. Large greenhouses generally use the least costly CO<sub>2</sub> supply source, i.e. cogeneration. This is however only commercially attractive as from a certain size. Small greenhouses therefore use the more costly boiler. An overview of the CO<sub>2</sub> costs provided by the Dutch authorities, is presented in the table below:

\* *Business secret*

	<b>Cost of CO<sub>2</sub> (EUR/Ton)</b>
Cogeneration or boiler, use of heat	<10
Cogeneration, no use of heat	30-60
Boiler, no use of heat	70-80
Liquid CO <sub>2</sub>	70-120

- (24) In addition, the growers will need to invest in the connection to the distribution network. They pay a connection fee to OCAP for their individual supply station and they need to invest in a connecting pipeline and associated valves, process equipment and automation to connect the supply station to their CO<sub>2</sub> dosing system. The investment of OCAP for the connections is thereby intended to be recovered by the connection fees.
- (25) The operating costs mainly consist of the purchase cost of CO<sub>2</sub>, electricity and utilities costs and maintenance costs. Given the existing operations of OCAP in the area, maintenance costs have been calculated against marginal costs and the costs for operating are assumed to benefit from the fact that the existing operations room is available which makes those costs can be avoided. The CO<sub>2</sub> purchase costs for the first phase of the project are contractually agreed; the purchase costs for the future supply are expected to be significantly higher due to a completely different type of suppliers (such as a waste incinerator).
- (26) Both for the notified phase I and for the entire project have the Dutch authorities submitted a funding gap calculation, meaning the difference between the positive and negative cash flows over the lifetime of the investment, discounted to their current value.
- (27) The period of calculation corresponds to the economic lifetime of the project and has been set at 15 years: 2018-2032.
- (28) The minimum rate of return required by the beneficiary's shareholder (Linde Gas Benelux) is [...] % for this and other projects, as evidenced by internal company documents.
- (29) For the notified investment, the funding gap amounts to EUR 3.46 million. The state aid amounts to 66.30 % of the investment cost and to 89.68% of the funding gap. For the entire project, including phase II, the funding gap amounts to EUR 3.12 million. The state aid amounts to 56.49% of the investment cost and to 99% of the funding gap.

#### National legal basis

- (30) The national legal basis for the aid is article 4:23-3-c of the "Algemene Wet Bestuursrecht". The aid granting authority is the commune of Haarlemmermeer. The measure constitutes individual aid which will be made available to the beneficiary as a direct grant.

### Budget

- (31) The Dutch authorities have notified an aid amount of EUR 3.315 million (EUR 3.10 million in discounted value) spread over 4 years. This notified aid amount only concerns the first phase of the project. It is the objective to pay out the grant within two years, following the reimbursement of costs done by OCAP. The notification takes into account the scenario of a potential delay in the realisation of the project.
- (32) The aid is subject to approval by the Commission. The Dutch authorities have indicated that they would give no further aid for the second phase of the project.

### Cumulation

- (33) The notified aid can be cumulated with EIA (Energy Investment Deduction). This is a tax exemption meant to stimulate investments in energy reduction or renewable energy. The Dutch authorities explained that EIA does not give rise to state aid in the meaning of Article 107 (1) TFEU considering that this is a general measure open to all companies on an equal basis<sup>3</sup>. The EIA has been deducted from the investment cost in the funding gap analysis.

## **3. ASSESSMENT**

### **3.1. Presence of State aid pursuant to Article 107 (1) TFEU**

- (34) According to Article 107(1) TFEU, *"any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market"*.
- (35) The measure is funded by the Dutch municipality of Haarlemmermeer and therefore stems from state resources and is imputable to the State. The public funds are made available in the form of a grant to the direct benefit of OCAP, which is therefore considered as the beneficiary.
- (36) It will relieve OCAP from costs it normally would have had to bear itself, and therefore the company benefits from an economic advantage over its competitors.
- (37) As the funding is granted to a single company, OCAP, the measure is selective.
- (38) The measure has the potential to affect trade between Member States and to distort competition because the beneficiary is active in the supply of gaseous CO<sub>2</sub> to the horticulture sector, where trade between Member States may take place. Furthermore, as the measure is expected to lead to a replacement of natural gas (for the production of CO<sub>2</sub> by means of boilers and cogeneration systems) by technology used by OCAP for production of CO<sub>2</sub> (waste CO<sub>2</sub>), the measure may also have effects on competition between existing and competing operators, directly or indirectly producing CO<sub>2</sub> and have an adverse effect on trade between Member States.

---

<sup>3</sup> See Commission decision of 23.7.2003 on N266/2003 – Project Offshore Windpark Q7, OJ C 266 of 5.11.2003, p.2.

- (39) Consequently, the Commission considers that the measure constitutes State aid within the meaning of Article 107(1) TFEU. It is an investment aid for construction of the CO<sub>2</sub> network in the PrimA4a area.
- (40) The suppliers of raw CO<sub>2</sub> to the beneficiary and the buyers of CO<sub>2</sub> from the beneficiary will not receive directly or indirectly the public funds or part thereof. Their contracts or transactions with the beneficiary all involve private undertakings. It follows that the supply and demand prices for CO<sub>2</sub> and ensuing benefits and costs throughout the lifetime of the operation of the infrastructure for third parties can be considered to be made available on market terms not giving rise to undue economic advantages, as further shown below.
- (41) The main supplier of CO<sub>2</sub> will be Shell which has additional CO<sub>2</sub> available. Shell has invested in the optimisation of the hydrogen plant to enable the increase of the CO<sub>2</sub> supply to OCAP. Commercial negotiations at arm's length have led to a price OCAP will pay to the suppliers. The price OCAP pays to Shell for the supply has been contractually determined and is calculated as the arithmetic product of the purchased volume by OCAP (ton/month) and the price (EUR/ton). The planned purchase volume amounts to 8 044 ton/year at a price of [...] per ton. Shell has invested [...] in the optimisation allowing the increase of CO<sub>2</sub> supply to OCAP.
- (42) Of the current suppliers, only Shell is subject to the Emission Trading Scheme (ETS) for CO<sub>2</sub> emitted in its industrial processes. According to the Dutch authorities, the supply of exhaust CO<sub>2</sub> to OCAP has no consequences for the obligation of Shell to surrender certificates under ETS.
- (43) As for the greenhouses, the price they will pay to OCAP will not be disproportionately lower than their alternative sources of CO<sub>2</sub>. The prices OCAP intends to charge are aimed to be as high as possible in the light of the benefits for the grower and in the light of the necessary scope of supply to make the project feasible.
- (44) The Dutch authorities explained that, in general, the greenhouses are not subject to the ETS since they do not reach the minimum threshold. If a large greenhouse would be subject to the ETS-system, it would have to pay the price of ETS allowances for each ton of CO<sub>2</sub> it emits<sup>4</sup>. The CO<sub>2</sub> production costs however of such a large greenhouse would be on the lower side of the presented bandwidth of EUR 30 to 60 / ton. Even if the cost of emission allowances would be added, the resulting price bandwidth for such a large greenhouse would be comparable if not lower than the OCAP price (i.e. the lower end of the range of EUR 47 to 79 / ton).
- (45) Therefore, on the basis of the foregoing, the measure cannot be held to give rise to an undue indirect advantage to the CO<sub>2</sub> suppliers or to the greenhouses in PrimA4a and it is therefore concluded that these are not beneficiaries of the planned State aid.

---

<sup>4</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 as amended by Directive 2009/29/EC establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, OJ L 275 of 25.10.2003, p.32. The Directive applies to greenhouses, to the extent that they engage in the combustion of fuels in installations with a total rated thermal input exceeding 20 MW.



### 3.2. Legality of the aid measure

- (46) By notifying the measure before its implementation, the Dutch authorities have fulfilled their obligation according to Article 108(3) TFEU.

### 3.3. Assessment of the aid measure

#### 3.3.1. *Applicable legal basis for assessment*

- (47) In derogation from the general prohibition of State aid laid down in Article 107(1) TFEU, aid may be declared compatible by the Commission if it can benefit from one of the derogations enumerated in Article 107(2) and (3) TFEU. For the present case, Article 107(3)(c) TFEU may provide the appropriate basis for compatibility.
- (48) The Commission has wide discretion in matters falling under Article 107(3) TFEU.<sup>5</sup> Exercising this discretion, it has issued guidelines and notices setting forth criteria for declaring certain types of aid compatible with the internal market based on Article 107(3) TFEU. It is constant jurisprudence that the Commission is bound by the guidelines and notices that it issues in the area of supervision of State aid in as much as they do not depart from the rules in the Treaty and are accepted by the Member States<sup>6</sup>. It is therefore necessary to first assess whether the notified aid falls into the scope of application of one or more guidelines or notices issued by the Commission. If this is the case, the Commission is bound for the exercise of its discretion under Article 107(3) TFEU by the respective text. If this is not the case, the Commission needs to verify whether the aid can be declared compatible directly based on Article 107(3)(b) and/or 107(3)(c) TFEU.
- (49) In the present case, the measure may fall, in view of its objective (reduction of CO<sub>2</sub> and energy savings), within the scope of the Community Guidelines on State Aid for Environmental Protection and Energy 2014-2020<sup>7</sup> (hereafter Environmental Aid Guidelines).
- (50) The scope of application of the Environmental Aid Guidelines is defined in paragraph 13 as follows: *These Guidelines apply to State aid granted for environmental protection or energy objectives in all sectors governed by the Treaty in so far as measures are covered by Section 1.2. They therefore also apply to those sectors that are subject to specific Union rules on State aid (transport, coal, agriculture, forestry, and fisheries and aquaculture) unless such specific rules provide otherwise.*

---

<sup>5</sup> Judgment of the Court of Justice of 21 March 1990, *Belgium v Commission* ("Tubemeuse"), C-142/87, ECLI:EU:C:1990:125, paragraph 56 and Judgment of the Court of Justice of 11 July 1996, *SFEI and others*, C-39/94, ECLI:EU:C:1996:285, paragraph 36.

<sup>6</sup> Judgment of the Court of Justice of 24 March 1993, *CIRFS and Others v Commission*, C-313/90, ECLI:EU:C:1993:111, paragraph 36; Judgment of the Court of Justice of 15 October 1996, *Ijssel-Vliet combinatie v Minister van Economische zaken*, C-311/94, ECLI:EU:C:1996:383, paragraph 43; and Judgment of the Court of Justice of 26 September 2002, *Spain v Commission*, C-351/98, ECLI:EU:C:2002:530, paragraph 53.

<sup>7</sup> Guidelines on State aid for environmental protection and energy 2014-2020 (2014/C 200/01), OJ C 200 of 28.6.2014, p.1.

- (51) Environmental protection is defined in paragraph 19(1) as *any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities, to reduce the risk of such damage or to lead to more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy.*
- (52) In the present case, the beneficiary will be enabled by the state aid at hand to provide waste CO<sub>2</sub> to greenhouses. However these CO<sub>2</sub> are used for the economic activity of the greenhouses. The environmental effect of the aid would be realised by the change in behaviour of the greenhouses using CO<sub>2</sub> from OCAP instead of using natural gas to produce their own CO<sub>2</sub>, thus leading to primary energy savings on the part of the end consumers (greenhouses) which should in turn reduce CO<sub>2</sub> emissions thus contributing to environmental protection.
- (53) Since paragraph 19(1) of the Environmental Aid Guidelines requires an action to prevent damage to physical surroundings by a beneficiary's own activities, OCAP is, with the notified investment, not carrying out any activities of environmental protection in the sense of the aforementioned paragraph 19(1) of the Environmental Aid Guidelines.
- (54) Similarly as in the case of CO<sub>2</sub> delivery to Zuidplaspolder<sup>8</sup>, the present falls therefore outside the scope of the Environmental Aid Guidelines.
- (55) There are no other frameworks or guidelines that may apply to the present case. Therefore, the Commission needs to assess the compatibility of the present measure directly on the basis of Article 107(3)(c) TFEU.
- (56) The Commission has assessed State aid for a similar infrastructure on the basis of Article 107(3)(c) and applied the criteria of the Community Guidelines on State Aid for Environmental Protection<sup>9</sup> by analogy in the case of CO<sub>2</sub> delivery to Zuidplaspolder<sup>10</sup>.

### **3.3.2. Assessment directly under Article 107(3)(c) TFEU**

- (57) Article 107(3)(c) TFEU states that "*...aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest...*" may be considered to be compatible with the internal market.
- (58) To assess whether a notified investment aid can be considered compatible with the internal market, the Commission analyses whether the design of the aid measure ensures that the positive impact of the aid towards an objective of common interest exceeds its potential negative effects on trade and competition.
- (59) It is established Commission practice that measures may be declared compatible directly under Article 107(3)(c) TFEU, if they are necessary and proportionate and if the positive effects for the common objective outbalance the negative

---

<sup>8</sup> Commission Decision of 14 December 2010 on N208/2010 – Aid for CO<sub>2</sub> delivery to Zuidplaspolder, OJ C 149 of 20.5.2011, p.3.

<sup>9</sup> OJ C 82 of 1.4.2008, p.1.

<sup>10</sup> Commission Decision of 14 December 2010 on N208/2010 – Aid for CO<sub>2</sub> delivery to Zuidplaspolder, OJ C 149 of 20.5.2011, p.3.

effects on competition and trade. In this regard, the Commission considers it appropriate to assess the following questions:

- (1) Is the aid measure aimed at a well-defined objective of common interest?
- (2) Is the aid well designed to deliver the objective of common interest? In particular:
  - (a) Is the aid measure an appropriate and necessary instrument, i.e. are there other, better-placed instruments?
  - (b) Is there an incentive effect, i.e. does the aid change the behaviour of firms?
  - (c) Is the aid measure proportional, i.e. could the same change in behaviour be obtained with less aid?
- (3) Are the distortions of competition and the effect on trade limited, so that the overall balance is positive?
- (4) The aid is transparent.

*Objective of common interest*

- (60) An objective of common interest is an objective which has been recognised by the European Union as being in the common interest.
- (61) The Dutch authorities explained that the aid measure aims at the Resource-efficient Europe Flagship initiative of the Europe 2020 Strategy. This flagship initiative supports the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth. In particular, the targets that have been set for climate change and energy sustainability include: (i) a 20% reduction in Union greenhouse gas emissions when compared to 1990 levels; (ii) raising the share of Union energy consumption produced from renewable resources to 20%; and (iii) a 20% improvement in the EU's energy-efficiency compared to 1990 levels.
- (62) In addition, on 22 January 2014, the Commission proposed the energy and climate objectives to be met by 2030 in a Communication 'A policy Framework for climate and energy in the period from 2020 to 2030'<sup>11</sup>, which includes targets for reducing greenhouse gas emissions by at least 40% by 2030 compared to 1990 and for increasing renewable energy to 27% by 2030. Subsequently, EU leaders have endorsed the 2030 climate and energy framework in the October 2014 Council conclusions, including an energy efficiency target of at least 27%.
- (63) The notified measure aims at making better use of waste CO<sub>2</sub> from industrial processes. To this end, the measure supports the construction of the necessary infrastructure to transport such CO<sub>2</sub> to end consumers. The project is expected to lead to primary energy savings on the side of the end consumers, i.e. the greenhouses, which in turn should reduce CO<sub>2</sub> emissions from fossil fuels, thus contributing to environmental protection. According to the calculations of the Dutch authorities, the measure would save in total 12 million m<sup>3</sup> natural gas per year and thus achieving an annual reduction of CO<sub>2</sub> emissions of 21 kton.

---

<sup>11</sup> Communication from the Commission to the European Parliament, the Council, the European Economic Social Committee and the Committee of the Regions – A policy framework for climate and energy in the period from 2020 to 2030 (COM(2014) 15 final) of 22.1.2014.

- (64) It can thus be concluded that the proposed measure contributes to a well-defined objective of common interest.

*Need for state intervention*

- (65) Where it is generally accepted that competitive markets tend to bring about efficient results in terms of prices, output and use of resources, in the presence of market failures, State intervention may improve the efficient functioning of markets.
- (66) The Dutch authorities explained that the market fails to coordinate cooperation between suppliers and consumers, preventing the development of the project. The Dutch authorities also demonstrated that, without state aid, it is financially not feasible and commercially not attractive for an investor to start the project since the majority of the greenhouses is still to be developed which creates a delay and uncertainty in the revenue streams.
- (67) It can be concluded that the aid effectively targets a market failure which is not addressed and therefore there is a need for state intervention.

*Appropriateness of the aid*

- (68) An instrument is appropriate if there are no other less distortive instruments to achieve the same results.
- (69) According to the Dutch authorities there are no other Dutch aid measures which could be used to finance the project. Most important obstacles for the realisation are the low revenue on equity for the beneficiary and the funding gap of the project. Granting the aid would raise the IRR of the first investment to [...] % and would raise the IRR of the total project (including phase II) to reach the hurdle rate of [...] %. The aid makes it possible for the beneficiary to realise the project. Therefore, the Dutch authorities explained that a financial direct grant is the only instrument which changes the behaviour of the beneficiary in such a way that the project will be realised and the environmental impact will be reached.
- (70) The main alternative to the planned subsidy would be to encourage the greenhouse farmers with a subsidy for building a greenhouse that would deliver an environmental benefit and/or for building a connecting pipeline to the existing OCAP-grid. However, part of the area is a green field, which means that there are currently no greenhouse farmers that own the land on which the greenhouses will be built and, as a result, there are no guarantees of achieving the environmental goals. Once the greenhouses have been built with a combined heat and power installation or boiler, it will be financially less attractive for the farmers to build a pipeline grid connecting the greenhouses.
- (71) Therefore, reaching the environmental goals in an efficient and transparent way seems to be better guaranteed by the notified measure. In addition, it paves the way for investments in renewable energy supply. The greenhouses would have an external source of CO<sub>2</sub> available, they would not need to produce CO<sub>2</sub> themselves by means of a combined heat and power installation or boiler and therefore this could open the possibility to consider alternative sources of energy. Thus it can be concluded that the envisaged aid in the form of a direct grant constitutes an appropriate instrument to achieve the desired CO<sub>2</sub> reductions.

### *Incentive effect*

- (72) The aid granted for the envisaged project must have an incentive effect. State aid provides an incentive effect if it changes the behaviour of the undertaking concerned in such a way that it engages in additional activity which it would not carry out without the aid or which it would carry out in a restricted or different manner.
- (73) The Commission considers that the aid does not present an incentive effect for the beneficiary in all cases where work on the project had already started prior to the aid application by the beneficiary to the national authorities. The Dutch authorities have confirmed that the works on the project have not yet started, pending authorisation from the Commission. The aid has been officially applied for on 4 July 2017. In the application form, OCAP has provided documentary evidence in support of the investment business case. In the counterfactual situation, OCAP will not invest in the project. The Dutch authorities have carried out a credibility check of the counterfactual scenario and have confirmed that the aid has the required incentive effect. The Commission has not identified any reason contradicting this position.
- (74) As there is no specific counterfactual scenario, apart from the do-nothing scenario, the incentive effect could be assumed when there is a funding gap, that is to say when the investment costs exceed the NPV of the expected operating profits of the investment on the basis of an ex ante business plan.
- (75) The funding gap analysis demonstrates that the net operating profit over an operational period of 15 years (EUR 1.22 million) will not cover the full investment costs of the project (EUR 4.68 million); therefore it must be considered that a private investor would not have undertaken it. The operating profit is deducted ex ante on the basis of reasonable projections. The Dutch authorities have provided the Commission with internal company guidance proving the required hurdle rate of return for this type of project. The Commission already accepted a hurdle rate of [...] % in this sector, notably in Commission Decision N208/2010 on the aid for CO<sub>2</sub> delivery to Zuidplaspolder<sup>12</sup>.
- (76) The State contribution with discounted value of EUR 3.10 million is lower than the funding gap of the project as notified, i.e. the difference between the investment cost and the operating profit of the facility over the period of 15 years in net present value (EUR 3.46 million). With the state aid the internal rate of return (IRR) of the first investment will increase to [...] %.
- (77) In addition, as the envisaged project consists of two phases, of which only phase I is notified, it is appropriate to consider the financial viability of the entire project. The funding gap analysis demonstrates that, if also phase II is undertaken in the estimated time frame, the net operating profit over an operational period of 15 years will increase to EUR 2.37 million. As explained by the Dutch authorities, an additional investment would be required, resulting in an NPV of the overall investment of EUR 5.49 million. The funding gap would therefore equal EUR 3.12 million. It can be concluded that the state aid contribution of EUR 3.10

---

<sup>12</sup> Commission Decision of 14 December 2010 on N208/2010 – Aid for CO<sub>2</sub> delivery to Zuidplaspolder, OJ C 149 of 20.5.2011, p.3.

million does not exceed the funding gap of the entire project either. With the state aid, the IRR for the total investment in the area will therefore increase to the investor's hurdle rate of [...] % in case phase II is implemented.

- (78) In addition, the Dutch authorities have indicated that they would give no further aid for the second phase of the project.
- (79) In view of the above the Commission considers that the aid has an incentive effect in that the project would not be carried out without the aid.

#### *Proportionality*

- (80) A state aid measure is proportional if the aid amount is limited to the minimum needed to incentivise the additional investment or activity in the area concerned.
- (81) The Commission observes that the funding gap approach is a common approach in the assessment of the proportionality of infrastructure cases and also the Environmental guidelines, in paragraphs (76), (165) and (211), make reference to the funding gap approach for several types of infrastructure projects.
- (82) The Dutch authorities have provided evidence that the aid does not exceed the funding gap (EUR 3.46 million), both for the notified phase I as for the entire project. The profitability of the project, even taking into account phase I and II, does not exceed the hurdle rate required by the investor.
- (83) It can therefore be concluded that the state aid granted for the notified project, remaining below the funding gap, is proportional, because it is in line with aid intensities the Commission uses to apply for comparable projects and because the detailed economic analysis of the project demonstrates that the aid amount does not exceed the minimum necessary to make the aided project sufficiently profitable.

#### *Avoidance of undue negative effects on competition and trade between Member states*

- (84) For the aid to be compatible with the internal market, the negative effects of the aid measure in terms of distortions of competition and impact on trade between Member states must be limited and outweighed by the positive effects in terms of contribution to the objective of common interest.
- (85) The market for the supply of gaseous CO<sub>2</sub> is by definition bound to the geographical scope of the infrastructure of OCAP for this project. This is the greenhouse region PrimA4a, near Hoofddorp in the Netherlands. Whereas the growers are acting on a larger market (i.e. vegetables and cut flowers), OCAP is acting on a geographically restricted market. In the Netherlands two other similar types of infrastructure have been realised by competitors. Warmco in Zeeland (Yara and Zeeland Seaports) and Made in Gelderland (Essent). The Dutch authorities explained that the product market for gaseous CO<sub>2</sub> by pipelines is currently restricted to the horticultural sector and that they do not foresee other sectors or users in the near future.

- (86) Therefore, as was also observed by the Commission in Commission Decision N208/2010 on the aid for CO<sub>2</sub> delivery to Zuidplaspolder<sup>13</sup>, any direct effect on trade between Member States would be limited only.
- (87) Moreover, the Dutch authorities explained that, although OCAP operates in a competitive market, no other competitors are interested in the realisation of a CO<sub>2</sub> grid in PrimA4a since the initial investment in a primary pipeline from industry to greenhouses is much too high to provide for reasonable returns on investment.
- (88) There are indirect competitors who deliver CO<sub>2</sub> by truck. However, costs for liquid CO<sub>2</sub> is almost the double of gaseous CO<sub>2</sub> delivered by pipeline. Therefore, without the ability to use gaseous CO<sub>2</sub>, the alternative for the greenhouses would be to produce their own CO<sub>2</sub>.
- (89) At the same time, the proposed measure ensures positive environmental effects. The project is expected to lead to primary energy savings of in total 12 million m<sup>3</sup> natural gas per year and a (related) CO<sub>2</sub> emission reduction of some 21 kton CO<sub>2</sub> per year.
- (90) It is concluded that any possible distortion of competition or adverse effect on trade between Member states resulting from the envisaged measure can only be limited whereas the environmental benefits are clearly established and could not result from other types of competing initiatives, so that the overall balance with regard to the objective of common interest of environmental protection is positive.

#### *Transparency of the aid*

- (91) The Dutch authorities have confirmed that the full text of the aid granting decision will be available on the website [www.haarlemmermeer.nl](http://www.haarlemmermeer.nl). The information published will contain the full text of the individual granting decision and its implementing provisions (or a link to it), the identity of the aid granting authority, the identity of the individual beneficiary, the aid instrument and the amount of aid granted, the objective of the aid, the date of granting, the type of undertaking, the Commission's aid measure reference number, the region where the beneficiary is located (at NUTS 2 level) and the principal economic sector of the beneficiary (at NACE group level). The information must be published after the decision to grant the aid has been taken, must be kept for at least ten years and must be available to the general public without restrictions.

#### *Conclusion on compatibility*

- (92) The Commission concludes therefore that the notified measure is compatible with 107(3)(c) TFEU.

---

<sup>13</sup> Commission Decision of 14 December 2010 on N208/2010 – Aid for CO<sub>2</sub> delivery to Zuidplaspolder, OJ C 149 of 20.5.2011, p.3.

#### 4. CONCLUSION

The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) TFEU.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent electronically to the following address:

European Commission,  
Directorate-General Competition  
State Aid Registry  
B-1049 Brussels  
[Stateaidgreffe@ec.europa.eu](mailto:Stateaidgreffe@ec.europa.eu)

Yours faithfully  
For the Commission

Margrethe VESTAGER  
Member of the Commission